Constructional change in Old and Middle English Copular Constructions and its impact on the lexicon[1]

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Applying the framework of Radical Construction Grammar to diachronic phenomena, the present paper examines Copular Constructions in Old and Middle English, with special attention to the loss of the Copula *weorðan* 'become'. First we reconstruct the extension of the OE Verbs *is*, *beon*, *weorðan* and *becuman* to various types of Copular Constructions. We further argue that schematic Copular Constructions emerge in overlapping usage areas resulting from these developments, in which abstraction is made of the Copulas' particular aspectual semantics. These schematic Copular Constructions in turn undergo some changes themselves. In Middle English a Passive Construction developed out of an original Copula Construction involving Adjectival Participles. However, the constructional profile of *weorðan* comprised an association between Participial and Adjectival Subject Complements much stronger than in other copulas, and this conflicted with this development, with the archaisization of *weorðan* as a result. This process of archaisization was further strengthened by the takeover of Weak Verbs in *-ian* (type *ealdian* 'become old') by new copulas like *becuman*. In general, we show how diachronic construction grammar might account for the loss of a function word otherwise difficult to account for.

Keywords: Old English, Middle English, copulas, diachronic construction grammar, *weorðan*, passive

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1. Introduction

The present paper examines the diachronic development of English Copulas and Copular Constructions roughly between 950 and 1350. This particular period was chosen because it spans the transition from Old English (OE) to Middle English (ME), a transition which is marked by some drastic lexical and grammatical changes. One such change is the disappearance of *weorðan* 'get, become'. In Old English, *weorðan* was on average the fifth most frequent verb of the language, with about 1,500 occurrences per million words (pmw). By the end of the fourteenth century, its frequency had decreased to a mere 43 occurrences pmw. This observation has led to the central research question of this paper: why does a highly frequent function word such as *weorðan* disappear?

The framework we use to address this question is Croft's Radical Construction Grammar (RCxG; as expounded in Croft 2001) (cf. section 2) – note, however, that most of our observations and claims are also in accordance with other construction grammar theories (in particular that of Goldberg 1995, 2006). An important assumption of RCxG is that constructions, while independent, are "related in a hierarchic system with several levels of schematicity" (Traugott 2007: 525; see also Croft 2001: 25–6). With that taxonomic perspective in mind, and following a brief methodological note on our corpus (section 3), we will first describe the range of uses of selected Copulas in OE, that is, the types of subject complements these Copulas combine with, as well as how schematic Copular Constructions in OE emerge on the basis of collocational overlaps between these Copulas (section 4). Secondly, we will argue that *changes* in those higher-level, schematic Copular Constructions, which initially subsumed lower-level *weorðan*-Copular Constructions, were (at least) a contributing factor in the demise of *weorðan*; that is, the disappearance of *weorðan* is not a phenomenon to be situated at the lexical (or, in RCxG terms, substantive) level, but the result of changes at a more general constructional level (section 5).

In general, this paper provides further arguments in favor of positing a schematic, constructional level in accounting for language phenomena. It has already been shown that constructional schemas can be "at work" (Goldberg 2006) in sanctioning new instances (or substantive constructions): see, for instance, Goldberg's (2006) work on the productivity of schematic constructions in language acquisition, Hoffmann's (2005) study on the grammaticalization of low-frequency complex prepositions through analogy with frequent, entrenched [Prep N Prep] constructions, or the diffusion of *for…to*-infinitive constructions

with semantically similar matrix verbs/adjectives (De Smet 2008). What this paper wants to demonstrate – and this has received little attention before – is that *changing* schematic constructions can also be "at work" in effectuating the demise of some of its lower-level, substantive constructions.

2. Copulas and copular constructions

2.1. A construction grammar approach to (English) Copulas

RCxG assumes that constructions – pairings of form and meaning which may be atomic or complex, schematic or substantive – are the basic units of linguistic analysis (Croft 2001: 45–7, 362). This means that syntactic categories found in constructions – such as copulas, nouns, and verbs – are derivative, i.e., they are defined relative to the constructions in which they occur. Such a view goes against the traditional definition of word classes as atomic, that is, as classes of words that are defined universally without fully taking into account their language-specific distribution. On this traditional definition, copulas are viewed (Pustet 2001: 5) as semantically empty, invariably co-occurring with lexemes functioning as their predicate nucleus, or what we will call 'subject complements'. However, *weorðan*, with its meaning of 'become', is clearly not semantically empty; yet, it is treated as a copula in most grammars of OE or ME. The problematic application of the (traditional) definition of 'copula' to *weorðan* can be resolved if one assumes, as RCxG does, that syntactic categories (such as verbs, nouns, or copulas) are derived from the constructions in which they occur. If constructions, which are language-specific, are taken to be the only primitives of language, there will be no verbs which are 'inherently' copulas – because they meet some well-defined necessary and sufficient conditions. Instead, verbs will be considered copulas only in a derived way, i.e., when they are used in certain language-specific constructions which pair a particular form with a particular meaning. For English, we will call this group of constructions (English) Copular Constructions (capitals signify that the constructions are specific to the language under investigation, in this case English). The verbs used in them, then, are (English) Copulas, if and only if used in them. The group of Copular Constructions is given a single name on the basis of a shared form and meaning, namely [$NP_{NOMINATIVE}$.Subj IntrV.Cop $XP_{NOMINATIVE}$.SubjComp], in which the part following the dot represents the constructional role assumed by the various formal units (Subj = Subject (of a Copular Construction), Cop =

Copula, SubjComp = Subject Complement),[2] the overall meaning being an act of intransitive predication, which can be defined as "the application of a general concept to a particular entity" (Stassen 1997: 12). In what other ways Copular Constructions form a unity will be elaborately discussed below.

While RCxG has mainly a typological agenda, it is insightful to combine RCxG and diachrony into a form of diachronic construction grammar. Generally, diachronic construction grammar is wider in scope than grammaticalization theory (see Noël 2007). As is well known, grammaticalization theory typically focuses on the development of grammatical functions in constructions where at least one lexical item remains constant across constructional instances (Traugott 2003: 645).[3] These grammaticalizing constructions are (partially) lexically specific or (PARTIALLY) SUBSTANTIVE (cf. Croft 2001: 15–17), and a representative example is the development of grammatical meanings in the *going to*-Construction. Diachronic construction grammar includes partially substantive constructions, and therefore incorporates instances of grammaticalization in its analysis, but it also involves the emergence of what are called SCHEMATIC constructions, and their development, once established.[4] Schematic constructions are cognitive schemas formed on the basis of semantic and syntactic similarities (see, e.g., Taylor 1999: 35) between substantive constructions, so that a particular slot is no longer associated with a single lexeme. A typical example is the English Transitive Construction [NP. Subj TransV. Predicate NP. Obj].

In adopting this diachronic constructional approach to our study of the change in English Copulas and Copular Constructions, we will focus, first, on how a schematic Copular Construction can be seen as dynamic and emerging from lower-level, substantive Copular Constructions (section 4), and second,

[2] Note that notions such as NP, IntrV and the like, are in principle always defined according to language-specific, constructional criteria (case morphology, agreement inflections etc.). They do not have universal validity. The same holds for constructional roles, which are either defined as "the class of fillers of a particular role in a single construction" (Croft 2001: 46) – in this case, instead of 'Subj', 'Subj in a Copular Construction' would be a more accurate label; or cross-constructionally, as "the class of fillers that has an identical distribution across the relevant roles for all constructions of the language, or at least some specified set of constructions in the language" (*ibid.*).

[3] Note that the attention in grammaticalization research to constructions rather than to lexical items or morphemes is of a relatively recent date; see also Bybee (2003: 602–3); Himmelmann (2004: 31).

[4] Whether these schematic constructions themselves are subject to grammaticalization processes is a moot point; see Noël (2007).

on how change in a schematic construction such as the schematic Copular Construction can have an impact on the (substantive) Copular Constructions containing *weorðan* (section 5).

The EMERGENCE of schematic Copular Constructions in OE is seen as resulting from a recurrent and systematic overlap in the types of Subject Complement various Copulas can co-occur with. While this overlap is ultimately the result of a diachronic development, in that it can only be detected once each of the Copulas has sufficiently extended beyond their original use, for most Copulas it is impossible to describe this development with any confidence, due to the lack of documentation and the time depth involved. Therefore, we prefer to view the range of Subject Complements the Copulas can combine with as synchronic. Within this range of usages, some are clearly more central than others. To the extent that sufficient diachronic evidence is available, the central uses can often be argued to be the historically prior ones, from which the other usages extend through various paths of development. For instance, the copula *is* frequently combines with object predicates, in the construction [NP. Subj *is* NP. SubjComp<object>]; as well, it is used with property predicates, in the construction [NP. Subj *is* AdjP. SubjComp<property>]. The Copula *weorðan*, by contrast, prefers property predicates, but also shows a less central use with object predicates. The result is that *is* and *weorðan* share a number of collocates (i.e., Subject Complements they co-occur with), although each collocate typically remains more central to one copula and less so to another. Generally, by OE several Verbs were able to fill the Copula slot of most of the Copular Constructions. This overlapping use of lexemes in the same types of construction, then, leads to the emergence of schematic Copular Constructions, such as [NP. Subj IntrV. Cop PPLE.<result>] (referred to as the COPULAR EVENT CONSTRUCTION), [NP. Subj IntrV. Cop AdjP.<property>] (COPULAR PROPERTY CONSTRUCTION), [NP. Subj IntrV. Cop NP.<object>] (COPULAR OBJECT CONSTRUCTION), etc. The five lexemes mainly involved in the emergence of schematic Copular Constructions in OE are (i) *is*;[5] (ii) *beon* 'be'; (iii) *wesan* 'be, remain' (mainly used as the suppletive past tense for both *is* and *beon*, although present forms are still occasionally found); (iv) *weorðan*

[5] We refer to this verb by its present indicative third person singular, because in OE and ME only (finite) present indicative/subjunctive forms occur: *eam*, *eart*, *is*, *sind*(*on*)/(*e*)*aron*; *sie*, *sien* (all derived from PIE *-(*e*)*s*). (*E*)*aron*, which is possibly from another stem, is included here, as its variation with *sind*(*on*) seems to be merely a matter of dialect (Campbell 1957: §768).

'get, become'; (v) *geweorðan* 'happen; become, get' (related to (iv)).[6]

It is thus, in general, the overlapping distribution resulting from changes in substantive constructions, extending beyond their original use, which gives rise to the emergence of schematic constructions. Obviously, once such schematic constructions have emerged in a language's grammar, the substantive constructions that lay at the basis of them do not stop changing themselves. New changes can occur in SOME – but not necessarily all – of the substantive constructions, and may, if sufficiently widespread, also propagate to the schematic level. Once this has happened, the now changed schematic construction may have an impact on ALL related substantive constructions, and thus on the lexemes used in these constructions. In this respect, we will examine the changes that propagated to two of the schematic English Copular Constructions, and their impact on the use of the copula *weorðan* in them. The changes in schematic constructions we will focus on are (i) the change from Copular Resultative Construction to Passive Construction, serving a discourse-structuring function of aligning given information to the Subject–Topic slot; and (ii) the change in the Copular Property Construction as a result of its increase in semantic range and productivity. This increase was brought about by the decrease in productivity of the morphological Construction known as the Weak Verbs(-Construction) of Class II, which ceased to form property predicates as the Construction still did in OE (e.g., *wergian* 'be(come) tired', *asurian* 'be(come) sour', *blacian* 'be(come) pale'). Both of these changes took place during the ME period.

The impact of changes at the schematic constructional level on the lexicon has only rarely been studied, and an approach incorporating such changes provides new ways of explaining the loss of function words in a language. We will show that RCxG provides such an approach. If a schematic construction changes, this means that the semantics (and/or the form) of the syntactic roles in that construction may change as well. If these changes subsequently lead to a conflict between the semantics of the syntactic role and that of the actual verbs used in these constructions, these verbs may not be used any longer in them and decrease in frequency.[7]

[6] Sometimes a prefixed form is probably an inflectional variant of *weorðan* rather than a separate verb; to avoid the problem of identifying when the prefixed form is a separate verb and when it is not, forms with the prefix *ge-* have been ignored in this paper.

[7] The only other study we are aware of that accounts for the loss of a function word by appealing to changes at the schematic level is Los' (2002) paper on the loss of the indefinite pronoun *man* 'one', which was, in her view, partially brought about by the loss of V2-order in the fourteenth and fifteenth centuries. Los does not explicitly use a con-

It should be kept in mind that the impact of the change in these two schematic constructions is probably only partial. Without concomitant factors, the lexeme *weorðan* may not have been lost after all. Concomitant factors may have been the phonological fusion of the present and past tense of *weorðan* in some dialects, or the development of analytic patterns to refer to future situations, which competed with present tense *weorðan* used in this way (see, e.g., Wischer 2006). Actually, the development of an analytic future [*will/shall* Infinitive] also consists of a change at the schematic level, but occurred independently, and is therefore excluded from the present account. Still, we would like to argue that the developments in the Passive Construction and in the Weak Verbs-Construction of Class II constitute major factors in the disappearance of *weorðan*.

2.2. Copular constructions and intransitive predication

As was pointed out in the previous section, English Copular Constructions associate the form [NP IntrV XP] with a semantics that can be characterized as INTRANSITIVE or ONE-PARTICIPANT PREDICATION. Intransitive predication is basically an act of classification whereby an entity (expressed as the Subject) is judged to instantiate an event or property, or to be an object belonging to a certain class of objects. In formal logic, this is expressed by means of one-place predicates such as *A(x)*, or "there is an *x* for which *A* obtains". While these Copular Constructions, as form-meaning units, are language-specific, they map onto (or stake out part of) a conceptual domain which is language-independent, or universal. In RCxG, this universal structure is metaphorically represented by the concept of conceptual space (CS), which has different regions (also called conceptual spaces) equivalent to different sorts of functions or functional domains (Croft 2001: 92–8). The functional domain, or conceptual space, in which the English Copular Constructions under discussion are predominantly used is that of one-participant or intransitive predication. The subregions of CS which the Copular Constructions containing *weorðan*, or any of the other OE or ME Copulas, are mapped onto constitute particular semantic maps. A semantic map is thus a map of language-specific categories onto the relevant conceptual space (cf. Croft 2001: 94).[8]

structional framework, but her analysis can easily be reformulated in constructional terms.

[8] Note that, in RCxG, grammar is ultimately semantically motivated (an assumption shared with cognitive grammar), hence the centrality of the concept of semantic map.

Before we can describe the emergence of the semantic map of Copular Constructions in OE and ME, then, we first need to get a good understanding of the conceptual space of intransitive predication, in which these constructions operate. We base our model of the conceptual space of intransitive predication on the model developed by Stassen (1997). In his account, the CS of intransitive predication is a two-dimensional space containing four semantic predicate categories: event predicates, property-concept predicates, object predicates, and locational predicates (Stassen 1997: 578).[9] The horizontal axis represents a cline on which the predicate categories are positioned from less to more specified in concrete space. The vertical axis, which is more important here, represents the time-stability of the predicate concepts. Event predicates (E) and locational predicates (L) are least time-stable, property predicates (P) are situated at an intermediate level, and object predicates (O) are most time-stable. In addition, a region for identificational expressions (ID) is positioned below the region in CS for object predicates. Including this region is justified given the fact that ID Constructions are a typical diachronic source for Copular Constructions (see Stassen 1997: 110–20). However, the expression of identification is not itself an instance of predication. It is expressed in formal logic as $x = y$, and can be paraphrased as follows: "A given entity *X* can be designated not only by the referring expression *A*, but also by the referring expression *B*" (Stassen 1997: 12). Figure 1 represents Stassen's model.

Within this model, E, L, P and O are considered coherent (sub)regions of the conceptual space of intransitive predication. Across languages, each of the four types of intransitive predication is prototypically encoded by means of a different constructional strategy. Below is an overview of these prototypical encodings, cross-linguistically as well as in Present Day English (PDE); in addition, as this is most relevant for the present discussion, this survey provides information on the extent to which Copular Constructions, as one of the constructional strategies, have come to express each of these predication types in English.

(i) Cross-linguistically, the intransitive predication of LOCATIONS prototyp-

In line with the importance attributed to this semantic dimension, we use in this paper, rather than syntactic labels such as Copular Adjectival Construction, mostly semantic classifications, such as Copular Property Construction (which comprises regular Adjectival Constructions to express a property, but also some other Constructions, e.g. *He is* LIKE A BROTHER [=*brotherlike*]).

[9] Object predicates are termed "class-membership predicates" by Stassen. He also uses the term "semantic map" rather than conceptual space to refer to the language-independent domain of intransitive predication.

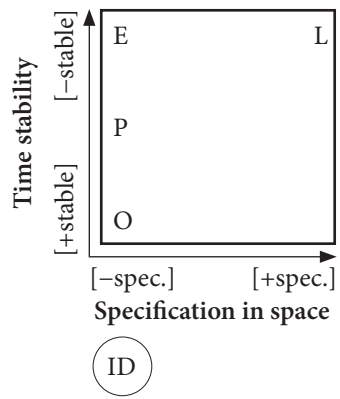

Figure 1. Conceptual Space of Intransitive Predication (Stassen 1997)

ically makes use of locative verbs. In PDE, it is prototypically encoded by means of a Copular Construction (1a); in addition, locative verbs such as *stand* (1b) can occasionally be used, although this is not the unmarked way to express locational predicates. Sentences (1a) and (1b) can thus be seen as equivalent.[10]

(1) a. *He **is*** in the garden.
b. *He **stands*** in the garden.

In Stassen's model, the time-stability of locational predicates is low (Stassen 1997: 128, 580). This holds if human subjects are involved, as in (1) and in the majority of cases.

(ii) Prototypically, the intransitive predication of EVENTS does not involve a Copular Construction. Instead, in the majority of the world's languages, events are realized through a verbal strategy, namely as morphological verbs. This is also the case in PDE, as is illustrated in (2a). However, (certain types of) event predication may also be expressed non-prototypically by copular strategies, as is illustrated in (2b).

(2) a. *He **falls**.*
b. *He **is tortured**.*

[10] Unlike in a sentence with an existential use of *be* such as *In London there **are** a lot of restaurants*, *in the garden* in (1a–b) is the predicate nucleus, as is made clear through its negative counterpart *He is not in the garden*, in which it is precisely the predication of the location that is negated.

Like locational predicates, events generally rate low on the time-stability scale: once the event has taken place, it does not exist anymore.

(iii) The intransitive predication of PROPERTIES, cross-linguistically, does not seem to have a typical constructional strategy of its own. Here, PDE borrows the copular strategy from object predication.

(3) *He **is** angry.*

Property predicates are the most variable category in terms of time-stability, ranging from very time-unstable (*angry*) to very time-stable (*wooden*).

(iv) In English and in most other Indo-European languages, the intransitive predication of OBJECTS is encoded by means of *is* (or its cognate):

(4) *John **is** a man.*

Cross-linguistically, the intransitive predication of objects either uses a zero strategy, as for instance in Russian (*Moskva gorod* 'Moskou (is) a city'), or uses a copular item which has its origin in a nonverbal discourse-marking element (Stassen 1997: 100). Such an element might possibly be at the origin of *is* too, if Shields' view (1978; 1992: 53–6) is correct; Shields argues that the copular item *is* originally marked the ID Construction in (early) PIE in general, and is the result of the verbalization of an (early) PIE demonstrative pronoun **(e)s*, used when two identical entities were put in apposition (as in *John, **that** guy over there*).[11] Whichever the origin of *is* and its cognates is, it remains the case that ID Constructions (as in (5)) do share this same form with Copular Object Constructions in PDE as well as most other Indo-European languages.

(5) *John **is** that guy over there.*

Object predicates are generally highly time-stable: class membership does not usually change overnight. This explains their relationship with identity statements: being identical to something else does not normally change at all.

(v) The encoding of ID Constructions is discussed under (iv).

From the above presentation of constructional strategies available in English, it is clear that PDE does not always make use of the cross-linguistically proto-

[11] An anonymous reviewer pointed out that Shields' view on *is* is highly unusual and does not reflect common Indo-European thinking (which derives *is* from a PIE verb *$h_1$es-*). Still we think that Shields' view is arguably superior, as it has a greater explanatory value, accounting for the preference of *is* for third person singular present contexts found in a variety of Indo-European languages.

typical strategy for a certain intransitive predication type, but uses a Copular Construction instead: this is the case for the intransitive predication of locations, certain events, and objects. The situation in English illustrates the phenomenon of takeover, which means that in the CS of intransitive predication a certain constructional strategy typically associated with one region can take over others. As such, the Copular Construction containing *is* in PDE not only occurs in object predication, but has also taken over the expression of property predicates, and even further, that of all location predicates and certain event predicates. Note that Stassen's model predicts that these last two extensions can only have taken place AFTER the extension to property predicates has been realized, as it is not possible to take leaps in the CS: constructional regions in a CS must be connected (see also Croft 2001: 97). In general, every strategy that wants to spread from a certain region to one of the other regions of the CS must FIRST take over the region of property predication.

3. A methodological note on the corpus

To show in what way constructional change can influence the life span of a certain lexeme, it is crucial to follow up the changes in the schematic constructions in detail. This entails analyzing a large number of instantiations of the Copular Constructions in late OE and early ME, as found in a corpus of texts as representative as possible of the language of these periods. Unfortunately, the texts available for these periods are scarce, severely restricted in genre, and they differ greatly in dialect. Most of the available corpora are either rather small, such as the Helsinki Corpus, or are not balanced in terms of dialect, such as YCOE or PPCME2 (see references). The problem becomes even greater when YCOE and PPCME2 are used for the comparison of OE and ME, as YCOE texts are mainly in the West Saxon dialect, which was in use mainly in the south of England (the region presently known as Wessex), whereas the early ME texts from PPCME2 are mainly in the West and East Midlands dialects, which are related to the OE Mercian and East Anglian dialects (Milroy 1996: 167; Toon 1996: 434–5). To enable us to make a more reliable comparison between late OE and early ME, we have therefore compiled a new corpus from existing material. This corpus strikes a balance between size and dialectical homogeneity: on the one hand, it is not too small;[12] on the other, it includes as many Anglian/Mercian texts as

[12] The total number of words is about 1.6 million, or, per period (with k = 1,000 words):

possible in the OE part, and adds the Winteney version of the Benedictine Rule (a southern text, version taken from the DOEC) to the ME period 1151–1250, as well as several southern texts to the period 1251–1350. A detailed description of this corpus can be found in Petré & Cuyckens 2008.[13]

From this corpus, we then extracted all occurrences of all the relevant lexemes (*beon*, *is*, *wesan*, *weorðan*, *geweorðan*, and *becuman*). For the texts available in parsed form, we based ourselves on these parses, and in addition double-checked for instances of *weorðan* in OE that were erroneously parsed as VB (lexical verb) rather than BE (copula). For the non-parsed texts, we first consulted the MED and (if available) DOE for attested spellings, and then checked an automatically compiled wordlist for these and other plausible spellings. All relevant spellings were then queried – using regular expression syntax – and manually filtered for useful hits. For *beon* and *is*, we then reduced the results to a random sample containing 10% of all occurrences, because analyzing all of them would have been far too time-consuming. The concordancing program we used for querying, filtering and sampling is Abundantia Verborum (Speelman 1997).

Figure 2 represents the normalized frequencies (per million words) of *weorðan*, and some other copulas, as based on these concordancing results. Note that the OE fluctuations in the frequencies of *is* and *beon* mostly reflect the fact that they only occur in the present tense, and that the past tense is provided by the verb *wesan*, with which they are (almost entirely) in complementary distribution. The fluctuations are therefore not very significant, and only show that the corpus is not balanced in terms of tense. Admittedly, there seems to be a slight increase in their overall frequency even then: the cumulative frequency of *is*, *be*, and *wesan* increases from an average of 34,000 occurrences pmw in OE to one of 36,000 pmw in the corpus. A detailed account of this increase is beyond the scope of this paper, but can be related at least partially to the development of the Passive Construction and the influx of predicates described in sections 5.3 and 5.4, respectively. More importantly, Figure 2 reveals that the relative stability of

750–950: 315k; 951–1050: 265k; 1051–1150: 115k; 1151–1250: 275k; 1251–1350: 175k; 1351–1420: 415k.

[13] Referencing to OE texts follows the system of short titles as used in Healy & Venezky (1980). For ME texts the stencils from the Middle English Dictionary (MED) are used. The present version of the corpus also includes ÆCHom I, 16–20 & ÆCHom II, 10–14, to provide a better balance in terms of genre. An overview of all the texts included in our corpus can be found at https://perswww.kuleuven.be/~u0050685/Petre_and_Cuyckens,_Constructional_change,_FLH,_Corpus_used.xlsx (no space at line break).

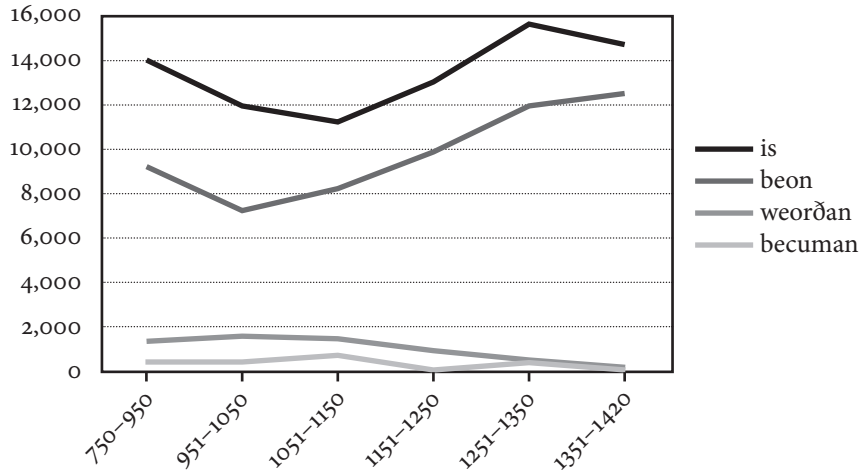

Figure 2. Frequencies (per million words)

weorðan in OE is followed by a steady decline in the early ME period. Figure 2 also indicates that the disappearance of *weorðan* can, in the first instance, not be attributed to a dialect switch between OE southern and ME midland texts, as the verb only really starts disappearing during early ME. While the influence of dialect and other language-external factors, such as language contact, is not excluded, we will show how a language-internal approach could offer a coherent explanation for such a remarkable disappearance.

4. The emergence of schematic Copular Constructions

We have seen in what way Copular Constructions are situated in the CS of intransitive predication (section 2.2), and have briefly described our corpus (section 3). We are now ready to discuss the structure of the various Copular Constructions in OE and ME and the emergence of a schematic Copular Construction on the basis of these structures. For each of the lexemes under investigation, we will provide statistics on their usage in various regions of the CS of intransitive predication, and how these usage data reflect particular semantic maps of intransitive predication in OE (section 4.1). We will then discuss the schematic Copular Constructions that can be seen as emerging on the basis of the overlap in the distributions of the individual Copular Constructions (4.2 and 4.3).

4.1. OE Copulas: distribution and semantic maps

According to Stassen (1997: 91–100), several types of words, such as verbs of position or pronouns, can develop into copulas used with more than one type of predication. Languages may only have one copular item for encoding the various types of predication, but this evidently need not always be the case. Sometimes, languages have several copular items available, allowing them to make a semantic distinction within one intransitive predication type or between various types. A well-known example are the Spanish copulas *ser* and *estar*, which both encode property predication, but where the first expresses a permanent characteristic of the subject, whereas the second expresses that the subject has a property only temporarily (Stassen 1997: 179–80). Similarly, before the documented history of OE, several words had already developed a copular function, namely, *is*, *beon*, *wesan*, *weorðan*, and *geweorðan*. In addition, in OE we occasionally find copular uses of the verbs of position *belifan* 'remain', *licgan* 'lie', *standan* 'stand', and *wunian* 'remain, live (in a place)'. And during late OE and early ME, *becuman* 'become', *weaxan* 'grow', among others, had also developed copular functions. In section 4.2, we will see what the consequence is of this emergence of multiple copulas. In the remainder of this section, we will reconstruct how four of these lexemes, namely, *is*, *beon*, *weorðan*, and *becuman*, were used as Copulas in the expression of the various intransitive predication types (i)–(iv) differentiated in section 2.2.

For reasons of convenience, each Copular Construction expressing a different type of predication is assigned a letter (B) through (E). (B) comprises Copular Constructions encoding locational predication (of the type illustrated in (1a)); (C) marks those Copular Constructions that encode event predicates (mostly of the (resultative) type illustrated in (2b)); (D) and (E) mark Copular Constructions that encode property and object predicates, respectively. (Non-copular) identifying clauses are labeled (F). Finally, (A) represents a residual category containing the following non-copular uses: (i) Transitive uses, which are very rare (three occur with *becuman* in our sample); (ii) Impersonal constructions lacking a nominative subject (equally rare); (iii) Intransitive, existential uses like those with *be* in PDE (6a) and (6b).

(6) a. Let it **be**.
b. In London there **are** a lot of restaurants.

Even if the verb *be* is an instance of intransitive event predication in each of these cases, it does not instantiate a Copular Construction. In (6b), *In London* is

not part of the predicate, but is an adjunct providing backgrounded information (Davidse 1999). With the inclusion of this residual category, all uses in our sample are covered. The letters are assigned in such a way as to (roughly) reflect the time-stability cline of the Subject Complements of the different Copular Constructions, with (A) and (F) positioned at that end of the cline with which they show most affinity.

4.1.1. *Is*

Although the origin of *is* remains unclear, by the time of the OE period – and still so in PDE, *is* is the most versatile copula, occurring in all positions of the CS of intransitive predication, as is illustrated in (7)-(13).

A. Non-Copular

(7) *Ach nu* ***is*** *sum wummon þe nalde for nan þing wilni fulðe tomon.*
but now is some woman who not-wanted for no thing want filth to-man
'But now a certain woman **exists** who would not for any thing desire filth with a man.' (*c*1225(?*a*1200). *Ancr.* (Cleo C.6): 50)

B. Copular Location Constructions

(8) *He* ***ys*** on XX milum from Hierusalem.
he **is** at 20 miles from Jerusalem
'He **is** *at 20 miles from Jerusalem*.' (*c*1000. *Mart 5* (Kotzor): Au3,A.10)

C. Copular Event Constructions
See below.

D. Copular Property Constructions

(9) *Kneoweð ure louerd for þat he* ***is*** wel god. and swo mild heorted.
know our Lord because he is very good and so mild hearted
'Know our Lord because he **is** *very good and so mild-hearted*.' (*a*1225(?*a*1200). *Trin.Hom.* (Trin-C B.14.52): 71)

E. Copular Object Constructions

(10) *Ha* ***nis*** nan husewif *ach* ***is*** an-churche-ancre.
she not-is no housewife but is a-church-anchoress
'She **is** *not a housewife*, but [she] **is** *a church-anchoress*.' (*c*1225(?*a*1200). *Ancr.* (Cleo C.6): 303)

F. Identifying clause

(11) a. Liber Iudicum, þæt **ys** *demena* *boc*.
liber Iudicum that is judgment:GEN.PL book
'Liber Iudicum, that **is** *Book of Judgments*.' (*c*1050. *ÆLet 4* (SigeweardZ): 422)

b. *Þe zixte heaued/ of þe kueade beste:* ***is*** lecherie.
the sixth head of the evil beast is lechery
'The sixth head of the evil beast **is** *lechery*.' ((1340). *Ayenb.* (Arun 57): 46)

Figure 3 gives the relative frequencies of these various constructions containing *is*, based on a random sample of 10% of all occurrences of the verb *is* in our corpus. At first glance, there is no single usage obviously central to *is*. However, an unusually high number of uses (about 25%) instantiate the ID Construction, higher than with any of the other OE Copulas. Moreover, as far as OE is concerned, the ID Construction is formally indistinguishable from the Copular Object Construction, both following the pattern [*is* NP], without any determiners specifying the NP. Together, these two Constructions take up between 30% and 41% of all occurrences of *is*, and on the basis of this frequency, the pattern [*is* NP] can therefore be said to constitute the most central use of *is*, and within this pattern the ID Construction is most central in turn. Further evidence for

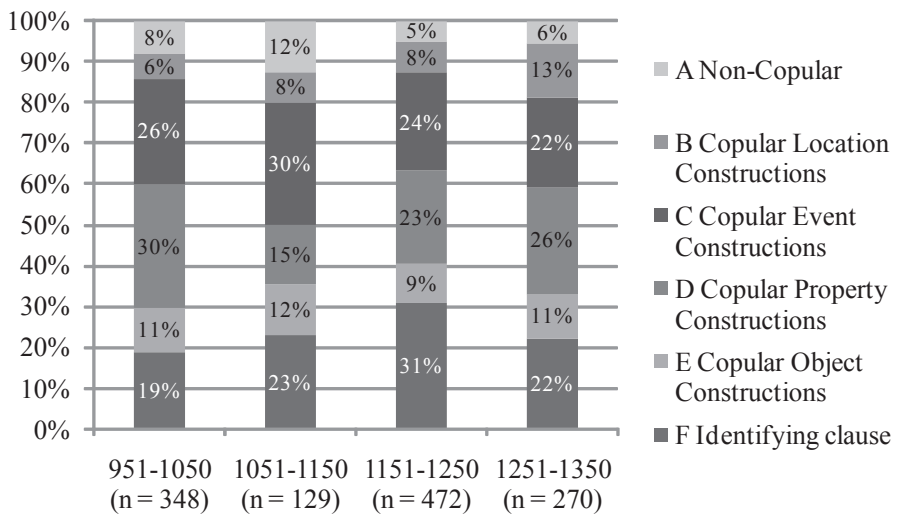

Figure 3. *Is*, distribution over construction types

the centrality of the ID Construction comes from the observation that a considerable part of instances of [*is* PPLE] subsumed under the Copular Event Construction consists of a Construction with the meaning 'is called NP' (*is nemned NP*, *is cweden NP*, …) (17.3% overall, as compared to a mere 4.6% with *beon*). The function of these instances is clearly closer to identification than to event predication.

Besides the centrality of the identifying use of *is*, the most remarkable quality of *is* is its frequency in the Copular Event Construction, even allowing for the 'is called NP'-Construction (cf. Figure 3 and examples (12) and (13)). This is the more remarkable in view of the fact that event predication, even in strongly copularizing languages such as Old English, generally resists copularization the strongest.

C. Copular Event Constructions (Resultative Construction)

(12) *Þonne* ***is*** *þar swiðe mycel cyrice & þrymlic ymb þa stowe utan*
then is there very great church & magnificent around that place outside
getimbred.
built
'Then **is** there a very large and magnificent church *built* round about that spot.' (*c*971. *HomS 46* (BlHom 11): 125.168)

(13) *Nu* ***is*** *þæt bearn* cymen.
now is that child come
'Now the child **has** *come*.' (*c*970. *Christ*: 66)

To be able to explain the presence of *is* in this construction we first need to do away with some misleading terminology. Traditionally, the constructions illustrated in (12) and (13) go under the name of Passive Construction and Perfect Construction, respectively, in which the participle is the main verb and the syntactic role of the finite Verb that of an Auxiliary rather than that of a Copula. These categorizations put too much emphasis on their difference with Copular Constructions. In line with Mustanoja (1960: 440), we argue that up to some point in the history of the Germanic languages, possibly even up to early OE, there is no such difference. (12) and (13), in this alternative view, instantiate a Resultative Construction (expressing the result of an event) through the combination of a Copula with an Adjectival Participle. Cross-linguistically, adjectival participles behave very much like adjectives (Haspelmath 1992). Evidence that OE Participles are still, at least to some extent, adjectival and thus fill a slot in a Copular Construction comes from their morphological and semantic

properties.[14] OE Participles show agreement in case (in the case of intransitive predication always Nominative) and number with the subject they complement, as is illustrated by (14) and (15) involving *is* and *beon*, respectively.

(14) *And þa Iudeas wæron ofslagene þam fulostan deaðe and heora*
and the Jews were killed the:INS foulest:INS death:INS and their
naman ***syndon*** adylegode *ofer ealre eorðan.*
names:NOM.PL are destroyed:NOM.PL over whole earth
'And the Jews were killed with the foulest death and their names **are** *erased* over the whole earth.' (*c*1075. *VSal 1* [Cross]: 30.4)

(15) *Ma þam þe an heafodleahtrum* ***beoð*** befeallene,
man those:DAT.PL who[NOM.PL] in head-sins are fallen:NOM.PL,
& þæm þe beoð on leohtlicum gyltum na gelice
and those:DAT.PL who are in light sins not equally
deme & scrife.
deem:SBJV.PRS.3SG and punish:SBJV.PRS.3SG
'One should not deem and punish those who **have** *fallen* into deadly sins equally to those who have into light sins.' (*c*1075. *ChrodR 1*: 30.48)

Adjectival participles come relatively close to the prototypical property semantics of adjectives too. As they denote what remains (the result) after an event has passed by rather than the event itself, adjectival participles express more time-stable predicate types than most other event predicates. This characteristic clearly relates them to the group of property predicates, which is situated at the intermediate level of time-stability. If we read (14) and (15) as instances of Copular Constructions – involving adjectival participles, we can paraphrase them as (16) and (17), respectively – with adjectives (for supporting evidence for this analysis with regard to the perfect see McFadden & Alexiadou 2005, 2006).

(16) *Their names are absent (after having been destroyed).*
(17) *They are sinful (after falling into sin).*

Mention needs to be made that such an adjectival reading is no longer readily available for all participles in OE. Indeed, there are signs, such as the frequent

[14] An anonymous reviewer pointed out that the remarkable similarity in frequency between adjectives and participles may be quantitative evidence for the adjectival nature of participles. We are not convinced of this. For instance, ID Constructions and Copular Object Constructions are, as far as form is concerned, entirely identical in OE, but in terms of frequency, they are widely divergent.

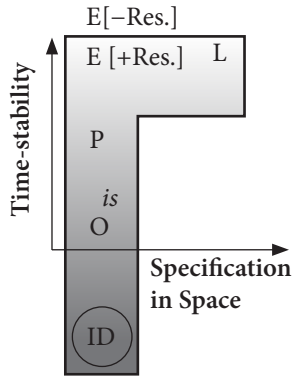

Figure 4. Semantic map of *is*

loss of morphological gender-distinctions, the explicit presence of an agent, and the further bleaching of the semantics of the Copula, that the adjectival status of Participles was wavering already in OE and that the Copular Event Construction was already underway to becoming a Passive Construction in OE. A more elaborate discussion of this subsequent development has to be postponed to section 5.3. In view of all this, it is not very surprising that *is*, which is also used in the Copular Property Construction, came to be used in the Resultative Construction too.

Summing up, Figure 4 gives the semantic map of *is* in OE, in which the grey shading indicates a higher amount of (darker) and a lesser amount of (lighter) centrality.

4.1.2. *Beon*

As is well known, *beon* in OE is often used in complementary distribution with *is*, marking either future time reference (as contrasted with present time reference in the case of *is*) or genericity (as contrasted with particularity) (see especially Kilpiö 1993). As a consequence, its collocational preferences are considerably different from those of *is*. *Beon* is rarely used in ID Constructions, which usually refer to the present and to a particular entity. Instead, *beon* is typically used in generic statements, in which the predicate generally expresses "a time-stable and prototypical (but not necessarily essential) property of the topic" Behrens' (2005: 275). A typical example is *Til* ***biþ*** *se þe his treowe gehealdeþ*. 'Good **is** he who keeps his promise.' (*c*1000. *Wan*: 112). A typical example with

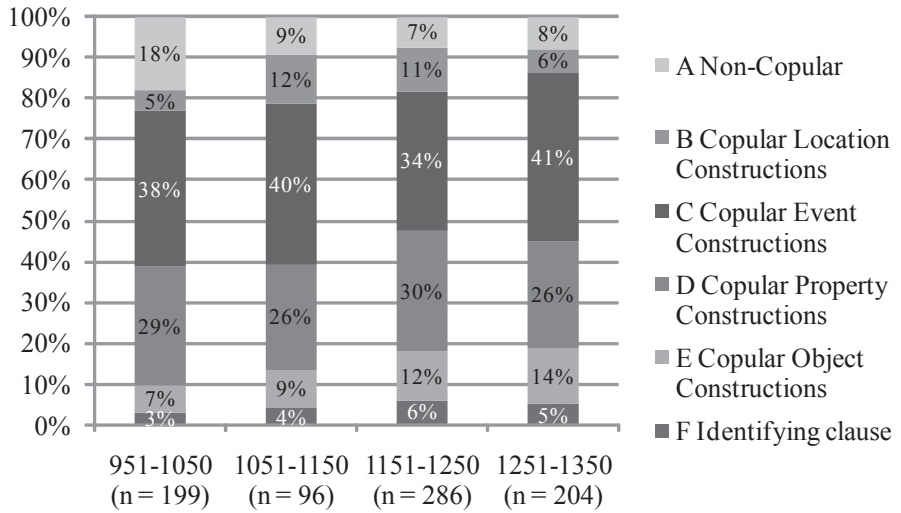

Figure 5. Beon, distribution over construction types

an event predicate is *Ðeos wyrt þe man uiperinam* […] *nemneð* ***bið*** *cenned on wætere & on æcerum*. 'This herb, which people call viperina, **is** produced in water and in fields (*c*1025. *Lch I* (Herb): 6.0).

This preference for generic statements accounts for the centrality of property predicates and event predicates, which becomes apparent from Figure 5, which provides the relative frequencies of the various constructions *beon* is used in. In addition, Figure 6 provides the semantic map of *beon*, with its central uses shaded in a darker grey. Figure 5 also shows two interesting tendencies in the data. First, the amount of object predicates increases slightly over time. This increase is probably related to the gradual merging of *is* and *beon* in ME (in this regard, see for instance Kilpiö 1997). Second, the number of intransitive uses, in which *beon* means 'occur, exist', decreases over time. This suggests that the copularization process of *beon* had not reached its completion in OE and that the verb originally was a lexical intransitive verb.

While direct evidence for how *beon* developed its copular uses is lacking, its future and generic semantics can readily be related to an original intransitive sense 'grow, come into being', which is the sense argued for in standard PIE etymology (Picket et al. 2000), and which also shimmers through in some existantial uses in OE, as in *On ðam londum* ***byð*** *piperes genihtsumnys* 'In that country **grows/occurs** an abundance of pepper' (*c*1000. *Marv*: 6.5). The meaning 'grow' is attested mainly in Ancient Greek, namely in *beon*'s cognate *phuo-*

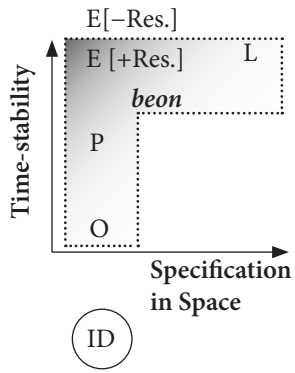

Figure 7. *Beon*, semantic map

mai (Liddell et al. 1996). While *phuomai* is mainly used as a lexical verb, it is sometimes used as a Copula too, and in these cases, it has the characteristic of genericity also found in *beon*, meaning 'naturally be [+ AdjP/PPLE]', as in *pistous phuesthai* 'being naturally faithful' (*Cyr.*, 8.7.13). Genericity thus appears to be directly linked to this original sense 'grow'. This is not surprising to the extent that growth is related to what is natural and thus applies to the kind as whole. Futurity can also naturally be related to growth semantics, which generally evokes expectations of result; or, alternatively, genericity can also lead to future use – what has always been the case will also be the case in the future (for this view, see e.g. Campbell 1959: 351). Whether the Greek meaning 'grow' is original or not, most of the early Indo-European languages use cognates of *beon* as the perfective counterpart of cognates of imperfective *is* (e.g., Latin *fui* as the perfect of *sum*). Even without the sense 'grow', this would account for the fact that *beon* tends to be used to indicate generic present, which often develops out of perfective forms, as in the Greek gnomic aorist (a perfective form; see Goodwin 1893: 53; see Ringe 2005: 195–6 for a fuller discussion of OE *beon*).

4.1.3. *Weorðan*

The distribution of *weorðan* over the various construction types is given in Figure 7. Sentences (18) through (22) are typical illustrations.

A. Non-Copular

(18) *Sona* ***wearð*** *micel eorðbyfung.*
soon arose great earthquake
'Immediately a great earthquake **occurred**.' (*c*1075. *ChrodR 1*: 14.21)

B. Copular Location Constructions

(19) *Gif hi* on treowum ***weorðað*** *holte tomiddes, hræðe bioð forsewene heora lareowas*
if they in trees come forest amidst promptly are neglected their teachers.
'If they **come** *into the trees* amidst the forest, promptly their teachers are neglected.' (?*a*960. *MetBo*: 13.35)

C. Copular Event Constructions (Resultative Construction)

(20) *Þa* ***wearþ*** *he* gefæstnod *be þære swiþran handa to þære bære, þæt he hangode to eorþan*
then got he fastened by the stronger hand to that bar that he hung to earth.
'Then he **was** *bound* with his right hand to that bar, so that he hung down to the earth.' (*c*971. *LS 20* (AssumptMor[BlHom 13]): 151.240)

D. Copular Property Constructions

(21) a. *Hi andettan ealle drihtne, hu he milde* ***wearð*** *manna cynne.*
they praised all:NOM.PL Lord how he mild became man:GEN.PL kind:DAT.SG
'They all gave thanks to the Lord, how he **became** merciful to mankind.' (*c*970. *PPs*: 106.30)

b. *Gif ðu* earm ***weorðe***, *geþenc þæt ðu hit eaðe geþolie.*
if you poor become think that you it easily suffer
'If you **would become** *poor*, remember that you bear it willingly.' (*c*1100. *Prov 1* (Cox): 1.14)

E.A. Copular Object Constructions

(22) *Ond binnan III gearum heo* ***wearð*** þæs minstres abbud.
and within 3 years she became that monastery abbess
'And within three years she **became** *abbess of that nunnery*.' (*c*1025. *Mart 1* (Herzfeld-Kotzor): De25,C.15)

E.B. Copular Object Constructions with PP as predicate
See (23) below.

Figure 7 makes it immediately clear that the central Constructions for *weorðan* are the Copular Property Constructions and the Copular Event Constructions. While superficially somewhat similar to *beon* in this respect, impor-

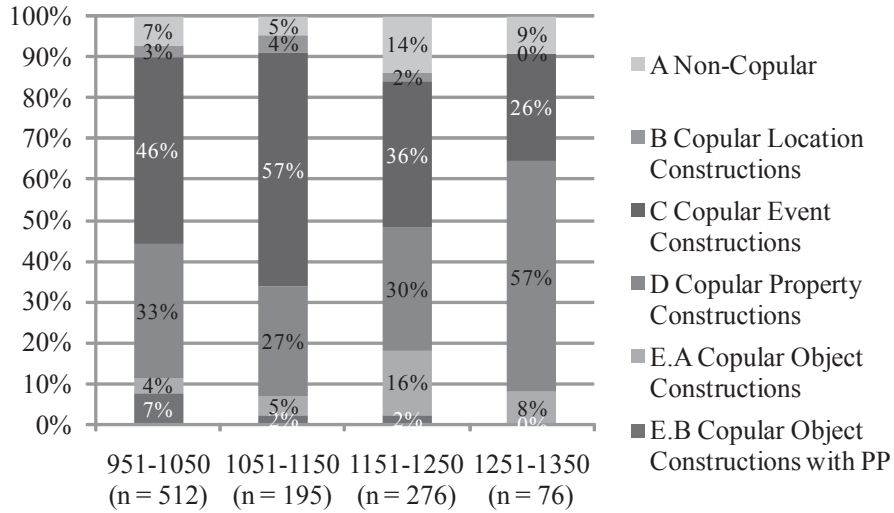

Figure 7. *Weorðan*, distribution over construction types

tantly, *weorðan*'s preference for these Constructions is not only stronger, but its collocational range with property predicates is fairly restricted too, and in this respect the verb differs significantly from *beon* as well as from *is*. Adopting a slightly modified version of Stassen's classification, itself based on Dixon (1977), the property concepts found in property predicates can be divided into eight groups, each of which take up a different position on a time-stability scale (the Y-axis in Figure 1; Stassen 1997: 169, see also Pustet 2001). Below are some examples taken from Adjectival Subject Complements found in the OE data.

LEAST TIME-STABLE

D.A Human propensity (*milde* 'merciful' (see (21a)), *forht* 'afraid' (see (35)), *bliðe* 'joyful', *sæne* 'hesitant', *wrað* 'angry', *yrre* 'angry')

D.B Physical and knowledge-related (physical: *earm* 'poor' (see (21b)), *wearm* 'warm', *drige* 'dry', *dead* 'dead'; Knowledge-related: *cuð* 'known', *open* 'public, open', *orgyte* 'manifest')

D.C Dimension (*lang* 'long', *scyrtra* 'shorter', *brad* 'wide')

D.D Color (*read* 'red', *deorc* 'dark')

D.E Age (*geong* 'young', *eald* 'old', *XIIwintre* 'twelve years old')

D.F Form (*seonuwealt* 'round ')

D.G Value (*god* 'good', *yfel* 'evil', *ænote* 'useless', *weorðe* 'worthy', *dysig* 'foolish')
D.H Material (*treowen* 'wooden')
D.I Gender (not expressed by means of an AdjP in OE)

MOST TIME-STABLE

Figures 8 and 9 represent the distribution of property predicates collocating with *weorðan* and *is*, respectively. A comparison clearly shows (i) that the distribution of *weorðan* is less diversified than that of *is*, and (ii) that *weorðan* largely collocates (in 85% of the cases) with property predicates signaling the least time-stable property concepts ('human propensity' and 'physical and knowledge-related'), while *is* has only few human propensity predicates as collocates, but relatively many time-stable value predicates.

The fact that it is the copula *is* which collocates with time-stable property predicates corroborates Stassen's cross-linguistic observations that (D.G) value, (D.H) material, and (D.I) gender properties, because of their prototypically higher time-stability, will be taken over more easily by copulas prototypically used in Copular Object Constructions. Conversely, either of the strategies encoding events or locations, each prototypically encoding time-unstable predicate types, will more easily take over time-unstable human propensity proper-

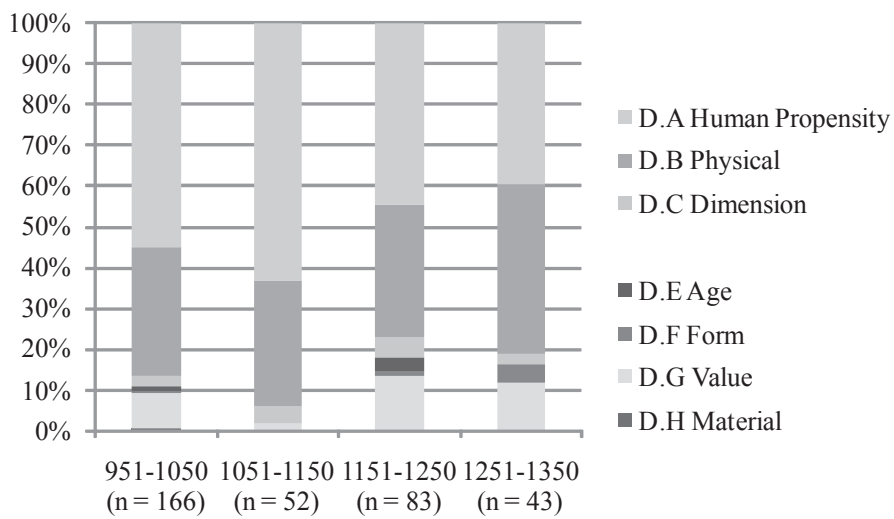

Figure 8. *Weorðan*, distribution over types of property predicate

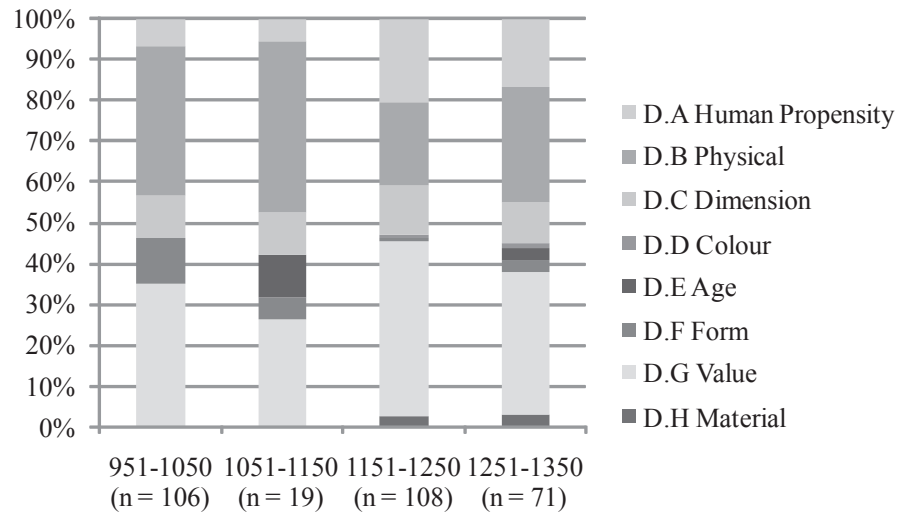

Figure 9. Is, distribution over types of property predicate (in the column for the period 951–1050, the dark area around the 40% tick mark represents D.F.)

ties and physical properties. Some rare archaic examples in English of takeover by the verbal strategy expressing events are *ail* 'be ill', *grieve* 'be sad', *rejoice* 'be(come) glad', or *thirsten* 'be(come) thirsty'. Indeed, in many languages, if any property concept category is expressed by morphological verbs at all, then it is that of human propensity (Stassen 1997: 169).

Given these cross-linguistic tendencies, the particular collocational preference of copular *weorðan* for time-unstable property predicates points to takeover from a strategy located in the time-unstable regions of the CS of intransitive predication. The only strategy available here other than the verbal one is the locational one. This type of origin for *weorðan* in the region of locational predication might seem unlikely, given the low frequency of locational predicates in the distribution in Figure 7. However, cross-linguistically it is not uncommon for locational verbs to lose their original function once they have grammaticalized into copular verbs (Stassen 1997: 94–5). When we accept the existence of this tendency, some indications can be found that *weorðan* originally was a locational verb used to denote motion through space towards some location. First, the etymological meaning of *weorðan* is generally taken to be 'turn, move (towards/away from a place)', still seen in Latin *vertere* 'turn' (Picket et al.

2000).[15] Though *weorðan* is different from locative verbs like *stand*, which are usually mentioned as sources for copulas and which do not involve motion, its original meaning still shares with these locative verbs the semantics of situating the subject in concrete, real space. Second, evidence for an entry via Copular Location Constructions also comes from the use of prepositional phrases to express object predicates, as in (23)

(23) *Wlitetorht scineð sunna swegle hat; sona* […] *ismere* […] ***weorðeð*** to wætre.
brilliant shines sun brightly hot soon ice-pool turns to water
'The brilliant sun shines hot in splendour; at once […] the ice-pool […] **turns** *into water* [i.e. **gets to be** *water*].' (?*a*960. *MetBo*: 28.59)

In English, prepositional phrases such as these prototypically encode locations and not property or object predicates. As such, it is natural to analyze (23) as a metaphorical extension from an original Copular Location Construction. Even if this Construction originated in a different way, it clearly sets apart *weorðan* from *is* and *beon*, and the Construction is therefore represented separately in Figure 7 (as E.B) – not to be confused with the ID Construction (F), which is absent in Figure 7. Figure 10, then, provides the semantic map of *weorðan* with the arrows indicating a possible reconstruction of the development of its various uses.

4.1.4. *Becuman*

A fourth copula found in OE and ME is *becuman*. We include this copula because it is the earliest attested copula of a new series specific to English.[16] As such, it is the first copula whose development we can trace in detail in the data. This development is illustrated by examples (24a), (25a), and (26)–(28), all of

[15] An anonymous reviewer, troubled by the low frequency of *weorðan* in Copular Location Constructions, refers to a possible parallellism with copular uses of English *turn*, as referred to in Bloomfield 1961: 427). Presumably, Bloomfield believes that these copular uses developed directly out of intransitive uses of *turn*. However, preliminary data we have collected for *turn* in English suggest that in OE and early ME, *turn* with a locational adjunct (*Marie* […] *turnde to ure lauerd*. "Mary turned to our Lord" (*c*1225(?*a*1200). *Ancr*. (Cleo C.6): II.274), precisely provided the context for the development of copular uses with a meaning 'change into' (e.g., *alle þing schule þe turne to gode* "All things shall turn to good (= become good)" (*c*1225(?*c*1200) *HMaid*. (Bod 34): 130), which provided the basis for the extension to other copular uses.

[16] Other new copulas found in early ME are, for instance, *weaxan* 'wax' (in late OE), *turnen* 'turn', *growen* 'grow', *komen* 'come', *biwenden* 'turn' (see Biese 1932, 1952 for some early attestations).

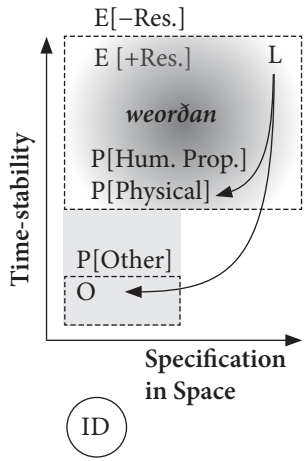

Figure 10. Weorðan, semantic map

which constitute the first attestations of the use of *becuman* in the various types of predication ((24b) and (25b) provide additional early attestations). Figure 11 shows the quantitative distribution of these types in OE and ME. Note that the rather abrupt change in the distributional pattern from OE to ME is probably

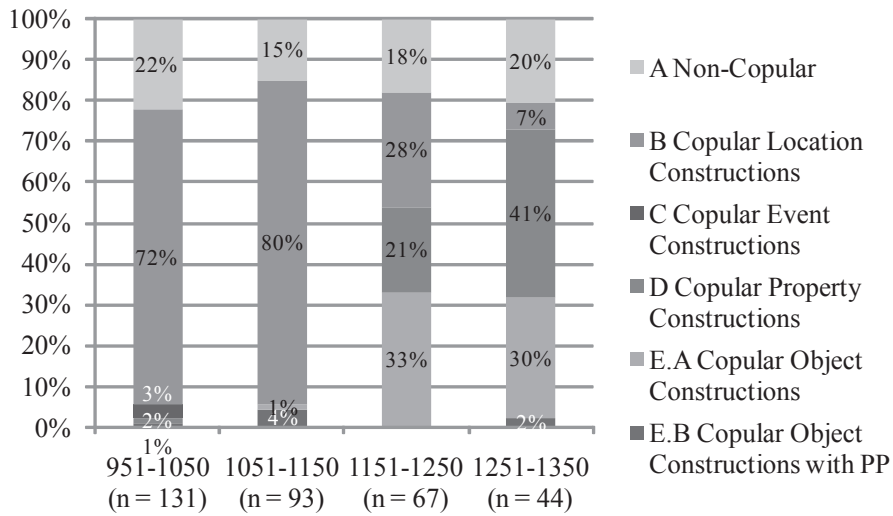

Figure 11. Becuman, distribution over construction types (Constructions that do not occur have not been marked 0%. These are: E.A in 951–1050; C & D in 1051–1150; C & E.B in 1151–1250; C in 1251–1350)

due to the habit of OE scribes to stick to Alfredian West Saxon as much as possible, which, by the end of the eleventh century, was far removed from the spoken language (Milroy 1996: 167).

A. Non-Copular

(24) a. *Ond þær* […] *oft micel swetnes wundorlices stences* ***becwom***.
and there often great sweetnes wonderful:GEN smell:GEN arose
'And there […] often a great sweetness of a wonderful fragrance **arose**.'
[Latin original: apparuerit].' (*c*900. *Bede 4*: 13.292.9)

b. *Þonne seo neaht* ***becymeð***.
'Then the night **comes**.' (*c*970. *Rim*: 168.70)

B. Copular Location Constructions

(25) a. *Dryhten geher gebed min & cleopung min* to ðe ***becyme***.
Lord hear prayer mine and call mine to you come:SBJV.PRS.3SG
'Lord, hear my prayer and **may** my call **come** [Latin original: perueniat] *to you*.' (*c*825. *PsGlA* (Kuhn): 101.1)

b. *Gelomp sume dæge,* […] *ðæt we* ***becoman*** on smeðne feld & rumne.
happened some day […] that we came in smooth field and spacious
'[It] happened some day, […] that we **came** *into a smooth and spacious field*.' (*c*900. *Bede 5*: 6.398.28)

C. Copular Event Constructions
(The only construction that belongs here, *becuman* + infinitive, is rare and is restricted to OE poetry.)

(26) *Lyt eft* ***becwom*** […] *hames* niosan.
few afterwards came […] home seek
'Few afterwards **got** […] *to return to their* home.' (*c*1000. *Beo*: 73.2362)

D. Copular Property Constructions

(27) *Us* milde ***bicwom*** *meahta waldend æt ærestan þurh þæs*
us:DAT mild became power:GEN.PL wielder at first through the:GEN
engles word
angel:GEN word:ACC.
'The wielder of powers **became** *merciful* to us at first through the word of the angel.' (*c*970. *ChristA,B,C*: 26.820)

E. Copular Object Constructions

(28) *And ða Wyliscean kingas coman to him &* ***becoman*** his menn
'And the Welsh kings came to him and **became** his vassals.' (?*c*1120. *ChronH* (Plummer): 1114)

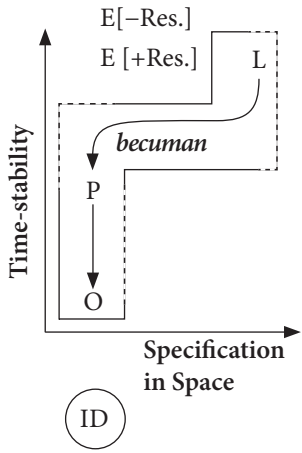

Figure 12. *Becuman*, semantic map

On the basis of this chronology of first appearances of *becuman* with the different types of predicates, we can reconstruct *becuman*'s spread over the various Copular Constructions as in Figure 12.[17] Since the distribution of *becuman* changes drastically over time, no attempt has been made to represent central usage in this figure. While the semantics of *becuman* turns out to be, from early ME onwards, fairly close to that of *weorðan*, there are two important differences. For one, *becuman* did not extend its use to participial event predicates, an observation that holds for all verbs that developed new copular uses during ME. It is only in the eighteenth century, when *get*, too, became frequent with participles (Fleischer 2006), that *becuman* extended to (passive) participles. Second, unlike *weorðan*, *becuman* in ME spread to all types of property predicate (not only indicating human propensity and physical properties) and was also frequently used in the highly time-stable Copular Object Constructions.

[17] Petré & Cuyckens (2008) provide detailed evidence that the spread of *becuman* was based on the usage profile of *weorðan* and thus became a marker of Copular Constructions through analogy. Basically, it is argued that the similarity between sentences such as (19) and (25b) served as a basis for further analogical extensions, such as the collocation with *milde* in (27), which is probably modeled on sentences like (21a).

4.2. The emergence of schematic Copular Constructions

In the above section, we have shown that the copulas found in late OE and early ME each have a distribution unique of their own, with their central and less central uses. Despite these different preferences, all of these verbs, as well as *wesan* and *geweorðan*, were used with resultative event predicates (except *becuman*), property predicates, object predicates, and locational predicates. In other words, the verb *is*, for instance, occurred in the following substantive constructions: [NP. Subj *is* AdjP(|PP). SubjComp<property>], [NP. Subj *is* NP(|PP). SubjComp<object>], [NP. Subj *is* PPLE. SubjComp<result>], and [NP. Subj *is* PP. SubjComp<location>], which then gave rise to a more schematic construction [NP. Subj *is* XP. SubjComp]. Similar constructional patterns obtain for each of the other verbs. In addition, given that each of the copulas could occur with each of the predication types – creating a situation of overlapping distribution – fully schematic constructions gradually emerged in the minds of the language users, such as [NP. Subj Cop PPLE. SubjComp<result>], [NP. Subj Cop AdjP(|PP).Subj Comp<property>], [NP. Subj Cop NP(|PP).SubjComp<object>], etc., through abstraction from the semantic differences between the different copular verbs (see section 4.3 below for a discussion of these semantic differences).

Given the existence of schematic constructions, each one can in principle be subject to change, in (at least) the following two ways. Both these changes are only rarely discussed in the literature on grammaticalization, but perfectly fit into a broader theory of constructional change that includes schematic constructions (Noël 2007).

(i) Its formal and semantico-pragmatic properties can change. While such changes originate in constructional instances at the (substantive) level of the utterance, once the change has taken place, it may be propagated to the schematic level and subsequently be represented in the semantic and/or formal characteristics of the schematic construction itself. Crucially, once the change is represented at the schematic level, it may in turn have an impact on lower-level constructions that originally did not participate in the change.

(ii) If the schematic construction is sufficiently entrenched in the minds of the speakers, one or more of its slots can change its status from being unproductive to being productive, meaning that new lexemes can become associated with it and used in it.

About the second change, a number of studies already exist. In particular, the way in which schematic constructions become productive in language acquisition has been well-studied (for an overview as well as new work, see Goldberg 2006: 71–90), and it has also been suggested as a mechanism of language change in historical linguistics (Hoffmann 2005, De Smet 2008; it is also similar to the concept of 'host class expansion' within the framework of grammaticalization, developed in Himmelmann 2004).

The first type of change has been studied too, for instance in the literature on the development of an auxiliary slot in English on the basis of distinct developments of (pre-) modal verbs (see, e.g. Plank 1984 for an overview and criticism). However, the impact of the schematic level on the lower, substantive level has not yet seen a lot of detailed studies, and certainly not from a constructional perspective. Important, recent exceptions are Traugott (2008), which discusses the impact of macro-constructions on meso- and micro-constructions, and Trousdale (2008) on the demise of the impersonal construction; note that, unlike in our own approach, both of them still conduct the discussion from the viewpoint of grammaticalization. In what follows, we will discuss in detail two instances of change at the schematic level of Copular Constructions, and their impact on lower-level, substantive *weorðan*-Copular Constructions, eventually leading to the demise of the lexeme *weorðan* itself. The first instance of schematic change involves the development of a Passive Construction out of the Copular Resultative Construction; the second one is the change in the Copular Property Construction – if combined with copulas denoting change of state – as a result of its increase in semantic range and productivity, an increase brought about by the decrease in productivity of the Weak Verbs of Class II.

4.3. Adjusting the CS of intransitive predication

In the previous sections, we have presented the semantic maps of each of the individual copulas, and we have seen that these verbs show overlapping distributions, allowing us to set up schematic Copular Constructions such as [Subj Cop Property.AdjP], [Subj Cop Object.NP], etc. How, then, can we represent the overarching semantic map of copular intransitive predication for English if we want to do justice to the fact that these schematic Copular Constructions primarily seem to abstract away from the semantic differences between the copular verbs, and in particular from the different *aspectual* information in the copular lexemes – a parameter which is as such not represented in Stassen's

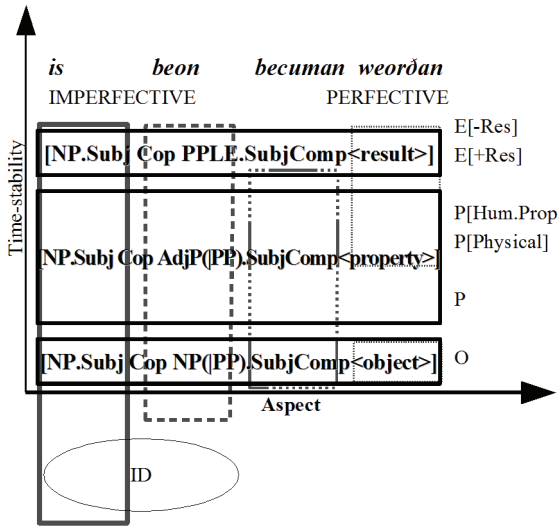

Figure 13. Schematic Copular Constructions along an axis 'aspect' in the CS

two-dimensional model.[18] To represent this parameter, we have to introduce a third axis ASPECT in Stassen's conceptual space. In Figure 13, this third axis is represented as the X-axis. Note that the second axis, which specified position in space, and which constituted the X-axis in Figures 4, 6, 10 and 12, is suppressed in Figure 13 – as are the locational bits of the semantic maps of the various copulas and the schematic Copular Location Constructions. In principle, the conceptual space represented in Figure 13 is still three-dimensional, and one should think of the dimension specifying location in space as an imaginary Z-axis.

It is precisely this third aspect axis/dimension which captures the fact that so many lexemes can be used as copulas in the CS of intransitive predication. If this third axis was not included, there would be no ready explanation why these different verbs show overlapping distribution in the first place – unless, of course, one was willing to accept that they were synonymous. Indeed, with only two dimensions, propositions such as *He was king* and *He became king* could only be conceived as synonymous, because their copulas link the same Subject with the same Subject Complement; and the Subject Complements would be

[18] Note that the schematic constructions schematize over the aspectual semantics inherent in the copular verbs themselves, not over morphosyntactically expressed aspect (see Hewson & Bubenik 1997 for more information on inherent aspect).

assigned the same position on the axis representing specification in concrete space as well as on the time-stability-axis (in Figure 1, these were the X- and Y-axes). What actually differentiates these propositions from each other is not the time-stability, or specification in concrete space, of their Subject Complements, but rather the inherent aspectual force of the copular verbs themselves. Aspectual forces often are also differing in terms of time-stability, but this kind of time-stability should not be confused with that mapped out on the Y-axis, which applies to the prototypical time-stability of subject complements only.[19] On the aspectual axis, then, situations can be positioned whose construal ranges from invariable or atemporal to punctual. At the leftmost end of the aspectual axis in Figure 13, where *is* is situated, the Copular Construction construes a situation without reference to its boundaries (imperfective, see Comrie 1976: 24), that is, as an invariable state or as being atemporal, while at the rightmost end of that axis (somewhere not too far behind *weorðan*), the Copular Constructions are found which construe a situation as punctual-perfective, i.e. where its initial and terminal boundaries are seen as (almost) co-inciding.

The following is a tentative and succinct description of the aspectual forces of the lexemes under consideration, with examples (29)-(38) illustrating the effect of the resulting aspectual differences.

Is is used exclusively in IMPERFECTIVE construals, more specifically in Subj–SubjComp relations that either represent the PRESENT situation – often by means of the adverb 'now', see (29), or which are ATEMPORAL in nature (representing an 'eternal present', as in (30)) (see Kilpiö 1993).

(29) *& nu* ***is*** *[Willelm de Walteuile]* abbot.
'And now **is** [William de Walteville] *abbot*.' (?*a*1160. *ChronE* (Irvine): 1154.13)

(30) *His name* ***is*** holy & dredeful.
'His name **is** *holy and dreadful*.' (*c*1350. *MPPsalter* (Add 17376): 139)

The aspectual application of information in *beon* is situated somewhere in between prototypical IMPERFECTIVITY and PERFECTIVITY. It is used when the relation Subj SubjComp encodes a situation that can be thought of as pluralized

[19] Naturally, there is a correlation between the two: prototypically short-lived properties like *angry* or *afraid* are prone to sudden change and thus will often correlate with change-of-state copulas like *weorðan*. Still, the aspectual force of the verb (together with other contextual items) can cancel the default reading of the adjective, as in *He is angry continually* (or, avoiding the mismatch between low time-stability of the adjective and high time-stability of the verb, one could also say *He is continually in a state of anger*).

in some way (Traugott 1992: 182): either it is GENERIC (iterative over all instances of a kind; sometimes assuming the sense of HABITUALITY), as in (31), ITERATIVE (32), or DURATIVE (33) (see Kilpiö 1993, Dahl 1985).

(31) Eadig ***byð*** *se wer se þe him ege drihtnes on ferhðcleofan fæste*
happy is the man who that him awe Lord:GEN in soul-chamber fast
gestandeð.
withstands
'*Happy* **is** the man who stands firm in his breast for the awe of the Lord.' (*c*970. *PPs 111*: 1)

(32) *Us is þonne nedþearf þæt we fæston; forþon þe we* ***beoð*** *oft* costode *from*
us is then necessary that we fast because that we are oft tempted by
deofle æfter urum fulwihte
devil after our baptism.
'It is necessary to us that we fast, because we **are** often *tempted* by the devil after our baptism.' (*c*971. *HomS 10* (BlHom 3): 27)

(33) *& mon þonne nohtes wyrþe his saule ne deþ ne his goldes, ne his*
and man then nothing worth his soul:DAT not does not his gold:GEN nor his
seolfres ne his eorþwelena gif he ær nele þone selestan dæl for
silver:GEN nor his earth-riches:GEN if he before not-want the best part for
hine sylfne Gode gedælan, þa hwile þe he her on life ***biþ***.
him self God:DAT give the while that he here in life is
'And then nobody will do anything profitable for his soul, with his gold, silver, or earthly riches, if he does not first out of himself want to give the best portion to God, as long as he **is** here *in this life*.' (*c*970. *HomS 14* (BlHom 4): 195.242)

Weorðan favours PERFECTIVE construals. Given the ambiguous aspectual status of *beon* and its potentially perfective origin (for which see section 4.1.2), one possible conclusion is that *beon* has lost much of its earlier perfective function and that *weorðan* has replaced it in this function. *Weorðan* is not used in generic or iterative clauses, but focuses on the (sudden) transition into a new relation between Subj–SubjComp, a new relation which is prototypically (35), but not necessarily (36), of short duration.

(35) *He* ***wearð*** afyrht *on swefne færlice swyðe.*
he became afraid in sleep suddenly strongly
'He **got** *afraid* during his sleep suddenly strongly.' (*c*1150. *LS 28* (Neot): 141)

(36) *Amanc þisan siþan siðe* ***wearð*** *Ælfstan* abbod *æt Sancte*
among this journey:GEN.PL journey became Ælfstan abbot at Saint
Augustine.
Augustine
'During this journey of journeys Ælfstan **became** *abbot* at Saint Augustine.'
(*c*1040. *Ch 1467* (Rob 91): 6)

Both *beon* and *weorðan* have extended their use to indicate future situations. For present tense *weorðan*, the future sense is almost the only one found in the data. This is not surprising for a perfective-present, which can only refer to the present if one is describing a sequence of punctual events in real-time, as for instance in live coverage of a sports event. Any action taking longer than a moment will usually not be described by a perfective present, but by an imperfective present or equivalent construction – such as the PDE progressive in *I am getting angry* – instead.

(37) *On þæm æfteran dæge* ***biþ*** gehyred *mycel stefn on heofenum.*
on the next day is heard great sound in heavens
'On the following day there **shall be** *heard* in the heavens a great sound.' (*c*971. *HomS 26* (BlHom 7): 91.169)

(38) Ærm ***wurðest*** *þu Winchæstre; þæ eorðe þe scal forswalȝe. swa Merlin sæide;*
poor be you Winchester the earth you shall swallow so Merlin said
þe witeȝe wes mære.
who prophet was great
'"*Wretched* you **shall be**, Winchester! The earth shall swallow you!" So Merlin said, who was a great prophet.' (*c*1275(?a1200). *Lay. Brut* (Clg A.9), II: 746)

Many studies on copularization, including recent typological ones like Stassen (1997) or Pustet (2001), have chosen to ignore copulas denoting situations other than a present situation, such as *weorðan*, *beon*, or *becuman*, arguing that they are no real copulas because they are not semantically empty. However, constructions containing these verbs form minimal pairs with those containing the 'true' copula *is*, as is illustrated by examples (29) and (36). By virtue of this contrast, *is* can be said to carry aspectual force as well, and it is therefore not semantically empty either. Moreover, this kind of semantics of *is* need not be universal, but will depend, among other things, upon how many other verbs are used in Copular Constructions in a particular language. Rather than being universally semantically empty, the only way in which a stative copula such as *is* has a privileged status is that it can be said to be the least marked option

in Copular Constructions. Compared to the other copulas, *is* is less marked because it is more frequent, and possibly also formally, as it is the lightest copula phonetically. More importantly, *is* is semantically least marked, because Copular Constructions prototypically first arise as a means of classification of a specific instance in which temporal situatedness is normally irrelevant. As such, a sentence like *This is a rock* will occur more frequently in a natural language, and is therefore less marked, than a sentence like *This will become a rock*. Nevertheless, the second sentence is not impossible in, for instance, a geological context. Taking into account all kinds of Copular Constructions, therefore, necessarily entails giving up the idea of a universal definition of an atomic primitive 'copula', and provides further substance to the main theses of Radical Construction Grammar: constructions constitute the primitives of language, are language-specific (though filling positions in universal conceptual space), and are hierarchically structured from less to more schematic. Only by taking this approach can we make the right generalizations and explain changes involving more Copular Constructions than the unmarked one involving *is* only.

5. Changes in the semantic map of intransitive predication

5.1. Introduction

In the previous section, we have argued for the existence of schematic Copular Constructions in OE. Crucially, these schematic Copular Constructions do NOT exist A PRIORI, but emerge on the basis of similarities between lower-level substantive constructions. The newly emerged schematic constructions are not like Platonic ideas, but are dynamic and may be subject to change themselves. These changes may, in turn, have an impact on the use of the substantive constructions related to them, and thus on the lexemes used in these constructions.

Before we discuss two instances of such changes, the question has to be asked how such changes can have an impact on the lexemes used in them. Our hypothesis is that a schematic constructional change always creates A TENSION between the schematic constructions and the lexemes used in them, because these lexemes are not construction-independent, but are markers of partially substantive constructions subsumed by the schematic constructions. If a mismatch occurs between a schematic and a substantive construction such that the meaning and/or form of these substantive constructions is no longer a proper

subset of the meaning and/or form of the schematic construction, the resultant tension may impact the use of the substantive construction. For instance, if the substantive construction adapts itself to the semantic and/or formal requirements of the schematic construction (comparable to what Michaelis [2005: 49] calls "coercion"), its distributional pattern is likely to change. Alternatively, if the meaning and/or form of the substantive construction are not adapted, it may start to sound archaic, decrease in use, and eventually disappear, the lexeme disappearing with it. This, we claim, is what happened to *weorðan*.

5.2. The Time-Unstable Copular Property Construction marked by *weorðan*

In order to gain insight in the tension between the newly established schematic constructions and the substantive constructions marked by *weorðan*, we have to return to the distribution of *weorðan*. As was stated in section 4.1.3, this distribution is remarkable in a number of respects: for all periods, (i) there are two dominant groups of collocates of *weorðan*, namely, resultative event predicates and property predicates (see Figure 7); (ii) together, they constitute 80% of the entire usage profile of *weorðan*; (iii) almost all the predicates of the group of the property predicates denote either human propensity properties or physical properties (see Figure 8), precisely the two categories that are semantically closest to resultative event predicates, as indicated by their proximity on the time-stability axis.

What these observations plainly suggest is that in late OE and early ME the Copular Resultative Construction marked by *weorðan* and the Copular Property Construction marked by *weorðan* were actually not separate constructions, but formed part of a single, semantically and formally coherent construction. We will call this substantive construction marked by *weorðan* the Copular Time-Unstable Property Construction. Formally, the Copular Resultative Construction and the Copular Property Construction are coherent because resultative event predicates are encoded by participial constructions, which are morphologically similar to adjectivally encoded property predicates. Admittedly, participial and adjectival constructions are not entirely identical, as participles no longer generally agree in gender in OE. Still, they do share morphological features in OE (and to a certain extent in early ME) encoding agreement in number and case with the subject. Examples (16) and (17) above illustrate the adjectival status of participles in collocation with *is* and *beon*; examples (20) and (39) below are examples in which *weorðan* is used.

(39) *Her sægeð þæt hi* ***wurdun*** *hrædlice* afyrhtede, *þa ure Drihten*
here says that they:NOM.PL got suddenly afraid:NOM.PL when our Lord
com an þas niht to ðære helle gatum.
came in that night to the hell:GEN gates:DAT.PL
'Here [it] says that they **got** suddenly *frightened*, when our Lord came in that night to the gates of hell.' (*c*1025. *Nic* (D): 13)

The morphological relatedness of participles and adjectives in OE is not exclusive to *weorðan*, and can therefore not sufficiently characterize the Copular Time-Unstable Property Construction. However, in collocating for the most part with human propensity properties or physical properties, *weorðan* is the only Copula associated with a group of semantically coherent predicates; the other Copulas also collocate with the more time-stable property predicates, which are semantically further removed from the resultative event predicates, and whose presence therefore weakens the semantic link between Copular Property Constructions and Copular Event Constructions. Additional evidence for the existence of the Copular Time-Unstable Property Construction is found in the co-ordination, following a single occurrence of *weorðan*, of Adjectives encoding human propensity/physical properties and Participles. This type of co-ordination is significantly more frequent in the case of *weorðan* than in the case of the other copulas: there are 15 occurrences in total in our corpus, or 1.4% of all instances of *weorðan*, as compared to only 0.5% for both *is* (6 occ.) and *beon* (4 occ.). The pattern is illustrated in sentences (40) and (41).

Resultative + human propensity

(40) *Ðo* ***wurðen*** *he* frigti and a-gris-en.
then became they apprehensive.ADJ and a-frighten-PPLE
'Then they **became** *apprehensive and frightened*.' (*a*1325(*c*1250). *Gen.& Ex.*(Corp-C 444): 667)

Resultative + physical

(41) *On þis gær* ***wærd*** *þe king Stephne* ded & bebyri-ed
in this year got the king Stephen dead.ADJ & bury-PPLE
'In this year King Stephen **got** *dead and buried*.' (?*a*1160. *ChronE* (Irvine): 1154.1)

Under the assumption that a single Copular Time-Unstable Property Construction marked by *weorðan* constitutes is cognitively real, the disappearance of *weorðan* can be related to particular changes in the schematic Copular Resultative Construction and in the schematic Copular Property Construction, which drive these two constructions apart at the schematic level. These changes will

lead the two constructions to extend their range of application to new uses, thus distancing themselves from each other semantically as well as formally. This split at the schematic level will cause a tension in the substantive Copular Time-Unstable Property Construction containing *weorðan*, in which the two ARE connected. Initially, *weorðan* will develop along with the other copulas, but at a certain point the tension between the newly developing uses and the existing Copular Time-Unstable Property Construction will become too strong. Instead of resolving this tension by accommodating the new uses at the substantive level, i.e., at the level of the Copular Time-Unstable Property Construction, *weorðan* will return to its original usage niche, the homogenous Copular Time-Unstable Property Construction; in renunciating these new uses, then, it will start to sound archaic and fall into disuse.

In the next sections, we will discuss the above mentioned changes in the schematic constructions in detail. The first of these changes consists of the development of the Copular Resultative Construction into a Passive Construction. The second one is a change in the Copular Property Construction resulting from the decrease in Weak Verbs of Class II expressing property predicates.

5.3. The development of a Passive Construction

This change within the group of schematic Copular Constructions consists of the development of the Copular Resultative Constructions (of the type *The house is burnt*) away from the rest of the Copular Constructions. There is ample evidence that the Copular Resultative Construction as a schematic construction comprising all instances of the pattern [V PPLE] gets reanalyzed, and that this results in the development of a group of Passive Constructions which differ considerably from the group of Copular Constructions (see also Mustanoja 1960: 440).[20]

In OE, sentences like (42) and (43) were not considered passivizations of transitive events, in which a patient is profiled and an agent deprofiled (cf. section 4.1.1). Instead, these constructions were used to encode truly intransitive situations, in which a state, which RESULTS from some previous action, is predicated of a non-agent.

[20] This does not mean that the pattern [V PPLE], even in PDE, cannot have resultative semantics anymore. Only, resultativeness is reanalyzed along the way as a special case within the Passive Construction rather than an element shared with the group of Copular Constructions.

(42) *Þe cwyde, þe* awriten ***is*** *on þere becc, þe is 3ehaten "Actus apostolorum".*
the saying that written is in that book that is called Actus apostolorum
'The saying, that **is** written [and now present] in the book, that is called "Actus apostolorum"'. (*c*1225(*c*1025). *BenRW*: 55.113.18)

(43) *Ac heora bendas sona* ***wurdon*** for-swælede.
but their fetters:NOM.PL immediately were away-burnt:NOM.PL
'But their fetters immediately **were** burnt away [and now ashy].' (*c*1050. *ÆLet 4* (SigeweardZ): 529)

However, probably in OE already, a change was taking place in the Copular Resultative Construction towards a different kind of construction, which we will call, in line with traditional terminology, the (English) Passive Construction, and which can no longer be said to belong to the core of the conceptual space of intransitive predication. Instead of encoding intransitive, resultative predication, this new Passive Construction comes to express a transitive event involving an agent and a patient.

A first set of developments reaches completion during the ME period, and involves *weorðan*, along with the other copulas. In particular, the reanalysis of the Copular Resultative Construction into a Passive Construction is actualized through a series of consecutive changes in the construction, which make it more and more transitive or 'passive' (see Cennamo 2006, who describes a similar development for Latin *fieri* 'become' + participle in some early Romance dialects). First, the transitivization of the construction is the result of the explicit encoding of the agent of the event, ultimately by means of a grammaticalized preposition. Second, the syntactic role of the finite verb changes: instead of being a Copular Main Verb connecting a non-agent to an intransitive predicate, it now functions as an Auxiliary (Langacker 1991: 127–47, Denison 1993); in this auxiliarization process, the copulas desemanticize, resulting in free variation between them. Finally, the status of the participle changes as well: instead of functioning as a resultative predicate, it is now verbalized, and this results in the extension of the range of participles to atelic verbs designating (ongoing) activities.

According to Mitchell (1985: 311–24), the first two developments are already in an advanced state in OE, but he does not take a position on the third development. Still, all three developments only seem to reach completion during the ME period. It will be seen that *weorðan*, along with the other copulas, is also going through these developments, but not to the same degree.

(i) In OE already, and in early ME, the agent could be expressed by the add-

ition of a prepositional phrase, and this holds for all copulas, as is illustrated in (44)-(46) (and also note *at ure drihtene* in (52) below).

(44) *& ic wille þet seo abbot beo gehealden for legat of Rome ofer eal þet iglande,*
and I want that the abbot be held for legate of Rome over all that island
& hwilc abbot þe ***beþ*** *þær* coren *of þe munecan þet he* ***beo*** gebletsad
and which abbot that is there chosen by the monks that he be consecrated
of þan ærcebiscop of Cantwarbyrig.
by the archbishop of Canterbury
'And I want that the abbot be considered a legate of Rome over that entire island, and that whichever abbot that **is** *chosen* there by the monks **be** *consecrated* by the archbishop of Canterbury.' (*c*1131. *ChronE* (Irvine): 675.21)

(45) *Gif þonne hwa þis ofergægð,* ***sy*** *he teartlice* þread *fram his ealdre.*
if then someone this transgresses be he sharply rebuked by his superior
'If then somebody violates this, **be** he sharply *rebuked* by his superior.' (*c*1075. *ChrodR 1*: 36.4)

(46) *He* ***wearð*** *eft forraðe* gefrefrod *þurh þone halgen Neoten.*
he got again quickly cheered through the holy Neot
'He **was** again quickly *cheered* by Saint Neot.' (*c*1150. *LS 28* [Neot]: 136)

There is ample evidence that these patterns were already entrenched in native Old English, even though some of them are clearly heavily influenced by Latin models (especially the most frequently used preposition, *fram* + agent, which usually translates Latin *a(b)* + agent; see Mitchell 1985: 322; Kilpiö 1989: 168). However, a fixed, fully grammaticalized preposition expressing the agent, such as PDE *by*, had not yet emerged, so that a clear distinction between agentive PPs and adverbial PPs denoting sources or pathways (see Kilpiö 1989: 166) could, at that state, not always be made.[21] Consequently, many agentive phrases do not differ very much from PPs occurring with other Copular Constructions, as, for instance, those with Property Concepts in (47)-(48).

(47) *& he þa lærde his apostolas, him sægde þurh hwæt seo saul* eadegust
and he then taught his apostles them told through what the soul happiest
gewurde.
become:SBJV.PRS.3SG
'And he then taught his apostles, told them through what [= how] the soul would **become** *most blessed.*' (*c*971. *LS 20* (AssumptMor[BlHom 13]): 159.394)

[21] Only in late ME, after the disappearance of *weorðan*, the preposition *by* grammaticalizes into the fixed preposition of the agentive PP (Cuyckens 1999).

(48) *Porphire ant auguste* ***worðen*** *of þeos wordes* se swiðe wil-cweme
Porphirus and Augustine became of these words so very well-content
[…] *þt ha wenden from hire abute þe midniht 3arowe to al wa.*
[…] that they went from her about the midnight ready to all woe
'Porphirus and Augustine **became** because of these words *so very content* […] that they went away from her about midnight ready for all kinds of misery.'
(*c*1225(?*c*1200). *St.Kath.(1)* (Bod 34): 41)

(ii) The shift of the verbal content from the copulas to the participle results in a desemanticization of the different copulas. This is seen, for instance, in the loss of the distinction between *weorðan* 'get' and *wesan* 'be' in late OE texts when combined with participles and if the focus is on the event rather than the resulting quality. This loss is illustrated in (49).

(49) (Annal 633) *Her* ***wearð*** *Eadwine cing* ofslagen, […] (Annal 642) *Her* ***was***
here got Edwin king slain, […] Here was
Oswald ofslagen Norðhymbra cing.
Oswald slain Northumbrian:GEN.PL king
'In this year king Edwin **was** *slain*, […] In this year Oswald, king of the Northumbrians, **was** *slain*.' (*c*1107. ChronF: 633 & 642)

(iii) A third important development involves the extension of the range of verbs filling the participle slot in the construction to (atelic) activity verbs (an inherently atelic type of *Aktionsart* in the typology of Vendler 1957; see Cennamo 2006: 325–6). This extension is probably the completion of a shift of the construction from expressing result(ative semantics) to expressing the event itself (eventive semantics), a change that had already started in OE, where some patterns with participles from telic verbs had already shifted focus onto the event itself (as for instance in (49)). On the basis of such shifted instances, an extension to atelic activity verbs was made possible. Especially for this class of verbs it is difficult to interpret the participial form as the result of a verbal action, as the verbal action is not directed towards a result. While clear attestations of this shift in OE are rare, in ME, from the fourteenth century onwards, participles from activity verbs seem to become more common, indicating that the (non-resultative) Passive Construction is gaining ground. Sentences (50)-(51) are examples with the verbs *is* and *beon*, whose activity reading is made especially clear by the presence of the adverbials *til another worlde* 'until another world' and *alday* 'the whole day'.

(50) *Al* ***es*** reserved *uncertayne til another worlde.*
all is kept uncertain until another world
'Everything **is (being)** *kept* uncertain until another world.' (*a*1450(?1348). *Rolle FLiving* (Cmb Dd.5.64): 114)

(51) *Suche place* […], *where we* ***ben*** fed *al-day with the sacramentes of holy chirche.*
such place where we are fed all-day with the sacraments of holy church
'Such a place […], where we **are (being)** *fed* all day with the sacraments of the holy church.' (*a*1450. *Aelred Inst.(2)* (Bod 423): 23)

Weorðan, however, did not participate in full in this development, and clear examples of *weorðan* + activity verb are extremely difficult to find. One possible example would be (52).

(52) *Efne nu þis synd þes gaslices tol & ȝebytle; ȝif hiȝ þurh us*
even now this are the spiritual:GEN tools and instruments; if they by us
dæȝes & nihtes unȝeswicenlice ***wurðoð*** *nu ȝefillede & on domesdæȝe us*
days and nights unceasingly are now filled and on doomsday us
eft betehte, þeo mede at ure drihtene us ðonne ***byð*** *ȝegoldon.*
back paid the reward by our Lord us then be paid
'Truly now, this are the tools and instruments of the spiritual: if they **will be** put into practice by us day and night unceasingly from now on and approved to us on Judgment Day, the reward **will** then **be** *paid* to us by our Lord.' (*c*1225(*c*1025). *BenRW*: 26)

The source of these participles deriving from activity verbs is partially to be found in the loss of the transitive construction with the indefinite pronoun *man* as a subject, and its replacement by a passive construction, for various reasons (see e.g. Los 2002). The last attestation of the impersonal pronoun *man* in the OED dates from 1484, but it had of course been quite infrequent already for a while by then. An OE illustration is given in (53).

(53) *Þonne hangaþ þær eac bufan þæm lastum geregnod swiþe mycel leohtfæt,*
then hangs there also over the footsteps placed very large lamp
þæt man simle mid ele fylleþ *swa oft swa his þearf bið.*
which people always with oil fill as often as it:GEN necessity is
'Then, placed over the footsteps, there also hangs a very large lamp, **which people always fill with oil** as often as there is a need for it.' (*c*970. *HomS 46* (BlHom 11): 127.214)

Compare this to Morris, who employs a Passive Construction in his 1878 translation: "Moreover, there hangeth, also, placed over the footsteps, a large lamp, **which is always filled with oil**, as often as is needful." (Morris 1967)

In Middle English, the Passive Construction showed further development towards a discourse-structuring function, but this development was not taken up any longer by *weorðan*. Seoane (2006) shows that in the seventeenth century, the construction, which had originally been a Copular Resultative Construction, acquired a discourse-structuring function. More specifically, it was increasingly used to topicalize the patient of a transitive event, for instance in order to maintain the unmarked given/new order of information in the clause, as in (54).

(54) [*I spoke to John last Tuesday.*] *He said he had been betrayed by Peter only a week earlier.* (Taken from Seoane 2006: 370)

Instead of using a passive as in (54), OE had the possibility of using OVS order (*me beswicode he* "me betrayed he"). Due to the rise of SVO-order however, OVS order became less and less frequent during the ME period. The main instigator of the development of the Passive Construction towards a discourse-structuring function therefore probably was the establishment of a fixed SVO order, which caused the topic and subject slots to overlap. If anything has to be topicalized in an SVO language, the easiest way to do it is to make it the subject of the sentence. Especially if the patient is a light element, such as a pronoun, this strategy is the preferred one.

Seoane situates the beginning of this development in the seventeenth century. However, the fixing of SVO word order had already been going on a good deal longer, and was considerably advanced by the end of the fourteenth century. Therefore, we would like to argue that the passive construction was already changing – along with the changing word order – towards a discourse-structuring construction much earlier, from the fourteenth century onwards (see, e.g., Kemenade 1987: 219–23).

A first piece of evidence in favour of this hypothesis is the development of a prepositional passive, whose first attestation actually dates already from the thirteenth century.

(55) *Þer wes sorhe te seon hire leoflich lich* ***faren*** *so reowliche* ***wið***.
there was sorrow to see her lovely body dealt so cruelly with
'It was painful to see her lovely body **dealt with** so cruelly.' (*c*1225. *St.Juliana* (Roy): 22.195; for a discussion, see Denison 1985: 191)

The function of this type of passive seems to be precisely to enable topicalization of a prepositional object in a language with fixed SVO-order, when a sentence like **With her body dealt they cruelly* was no longer available.

Secondly, there is a decrease of accusatives in first position already in early ME, of the type given in (56), whose natural PDE translation is a passive.

(56) *& gif he þæt gelæste, þonne bið he weorðe, þæt* ***hine***
and if he that accomplish:SBJV.PRS.3SG, then is he worth that him.ACC
man þe bet healde, *wunige þær he wunige.*
people the better hold:SBJV.PRS.3SG live there he live
'And if he would accomplish that, then he will be worthy **to be held the better**, live he were he live.' (*c*1025. *LawVIAtr*: 3.2)

Summing up, the emergence of explicit agents and the auxiliarization of the finite verb point in the direction of an extension of the Copular Event Construction to patterns more closely related to transitive schemas. With the loss of *man*-Constructions and the concomitant increase of participles from activity verbs, the emergence of prepositional passives and the replacement of O(S) V with Passive SVO Constructions by the fourteenth century, the development seems to be on its way to completion precisely in the century that witnessed the most marked fall in the frequency of *weorðan*, from 992 occurrences pmw in the first quarter of that century to 43 in the last (as based on our corpus data). Such a development, now, brings along with it a split between the group of Copular Resultative Constructions and the group of Copular Property Constructions semantically closest to the Copular Event Constructions, namely those denoting human propensity (*sad*, *angry*, *happy*, etc.) and physical properties (*heavy*, *light*, *sweet*, etc.). This, in turn, puts pressure on the Copular Time-Unstable Property Construction marked by *weorðan* to split as well. However, the association between resultative event predicates and property predicates in the case of *weorðan* is so strong that *weorðan* increasingly resisted such a split and as a consequence started to sound archaic and not up to date to the present state of the set of schematic constructions available to the language users. This unsolved tension, then, furthered the disappearance of *weorðan*.

In the case of the other copulas (*is*, *beon*, *wesan*), this split did not cause the same kind of tension, because their usage profile was not clustered in some kind of homogenous Copular Time-Unstable Property Construction. For the verbs *is* and *beon*, many of the property concepts with which they collocate are situated further on the scale of stable properties (so closer to object concepts), and hence less similar to the resultative event predicates. Because of this initial lack of similarity, the constructional split does not really tear a homogenous whole in two.

Finally, note that the explanation offered here does not contradict a more traditional type of explanation in terms of competition (recently argued for by

Müller 2009). On that account, once the passive becomes grammaticalized, the aspectual differences between *is/beon/wesan* and *weorðan* become attenuated or eliminated, such that the two sets of verbs end up being synonymous. Under these conditions, elimination of one or the other would be expected, assuming a general drive for economy in the language. It is definitely true that an increase in semantic similarity is involved in the development of the passive – we have referred to this as the semantic bleaching of the copula. However, competition alone still fails to explain why one particular verb came to be preferred over another. Appealing to token frequency as a determinant of the outcome of competition will not do, because in German for instance it was *werden*, *weorðan*'s cognate (and the less frequent alternative), and not *sein*, that became the default auxiliary for the passive. It is precisely with respect to the issue of which factors contribute to the elimination of which verb that the constructional approach has some additional explanatory value over a vague concept such as that of competition between lexemes. Constructions, unlike lexemes, are part of a language system, and can fit the system better or worse, and this fact does provide sufficient motivation for the elimination between two alternative construction-dependent lexemes.

5.4. The decrease in productivity of the weak verbs of Class II and the Copular Property Construction

ME witnessed the functional extension of the schematic Copular Resultative Construction with as a result a newly established Passive construction. But also the schematic Copular Property Construction changed and was extended during the ME period. While the change of the Resultative Construction is a change both in function and in semantic range and productivity, the change of the Copular Property Construction only involves a change in semantic range and productivity; including more time-stable predicates and the use of new copulas such as *becuman* and *weaxan*.

This change was brought about, it seems, by the decrease in productivity of the Weak Verbs of Class II denoting property predicates. As we have seen, *weorðan* is used in perfective contexts and expresses the transition into a new state – in addition to future states. Until about 970, the period of the first attestation of *becuman* as a copula, *weorðan* was the only copula available to denote a change of state. Moreover, as we have seen, *weorðan* was restricted in its range, in that it only was used together with resultative event predicates and human propensity or physical property predicates.

Copular Constructions marked by *weorðan* were not the only means to express the transition into a new relation between Subj–SubjComp. Next to these, and in some contexts probably in competition with them, transition into a new Subject–Predicate-relation involving property predicates could be expressed by means of intransitive verbs from the Weak Verbs of Class II. This class of verbs was productive in OE and was constructionally separated from other verb classes by means of its morphology, with thematic vowels *-i-* and/or *-a-* in the present and *-o-* in the past tense (Campbell 1959:§754–61). For the sake of brevity, we will refer to this class with the term VERBS IN *-IAN*. An illustration of a Verb in *-ian* expressing a human propensity predicate is given in (57).

(57) *Þonne **forhtiaþ** ealle gesceafta, ge heofonware ge eorþware.*
then fear all creatures, both heavenly and earthly
'Then all creatures **become/will be afraid**, both heavenly and earthly.' (*c*970. *HomU 18* (BlHom 1): 11.128)

However, Verbs in *-ian* differ in several respects from *weorðan*-Constructions. While *weorðan* is used almost exclusively to indicate the transition into a new Subject–Predicate relation, Verbs in *-ian* seem to focus on the transitory character of the Subject–Predicate relation as a whole, not merely on its starting point. Secondly, unlike *weorðan*, Verbs in *-ian* cover the whole range of property concepts, also the more time-stable ones, as is shown by examples (58)-(60).

(58) *Ymb stric mid hate isene swiðe leohtlice þæt þæt fel **hwitige**.*
round smooth with hot iron very lightly that the skin whiten:SBJV.PRS.3SG
'Smooth round very lightly with hot iron so that the skin **whitens**.' (*c*950. Lch (1): 38.8.5)

(59) *Hwæt we witon þæt ælc wlite & ælc fægernes to ende efsteþ &*
what we know that each face and each beauty to end hastens and
*onetteþ þisse weorlde lifes forþon se lichoma **ealdaþ**.*
hurries this:GEN.F world:GEN.F life:GEN.N because the body age:IND.PRS.3SG
'What! We know that each face and each beauty hastens and hurries to an end of this world's life, because the body **gets old(er and older)**.' (*c*970. *HomS 17* (BlHom 5): 57.57)

(60) *Ten ðusend geara, þeah hit lang ðince,*
ten:NOM.SG thousand:NOM.SG year:GEN.PL, though it long seems,
***ascortaþ**, & þæs oðres næfre ne cymð nan ende.*
shorten:IND.PRS.3SG and that:GEN.N other:GEN.N never not comes no end
'Ten thousand years, although it seems long, **get short(er)/are short**, and to that other thing there never comes an end.' (?*a*960. *Bo*: 18.44.18)

From late OE onwards, the possibility of Verbs in *-ian* to productively express property predicates started to decline, and many of the existing verbs from this class disappeared. To take a representative example, the verb *ealdian* gradually decreased from a frequency of 34 pmw in 951–1050 to one of 6 pmw in 1251–1350. However, the predicate types these verbs used to express did not disappear with them. As such, one could have expected that *weorðan*, which was so close in meaning, took over also if more time-stable property predicates were involved, such as those expressed in (58)-(60). However, a collocation such as *olde worthen* 'become old' does not seem to occur in any Middle English text.[22] Instead of being expressed by *weorðan*, a property such as 'old', and more time-stable predicate types in general, are expressed by Copular Constructions using new copulas, the most frequent of which are *becuman* and *weaxan*.

(61) *When þe nyhtegale singes, þe wodes* ***waxen*** grene.
'When the nightingale sings, the woods **grow** green." (*c*1325. *When þe nyhtegale* (Hrl 2253): 1)

(62) *And þe riȝtful shul lord-shippe vp hem in ioie; and her helpe shul* ***bycomen***
and the rightful shal govern over them in joy and their help shall become
olde fram her glorie in helle.
old from their glory in hell
'And the just shall happily have dominion over them; and their help shall **become** old in hell from their glory.' (*c*1350. *MPPsalter* (Add 17376): 48.16; compare OE PPs [48.14] from *c*970, which has *forealdað*, a verb in *-ian*.)

We would like to argue that *weorðan* did not take over the property predicates expressed by the Verbs in *-ian*, because it was so entrenched in the Copular Time-Unstable Property Construction. Within this construction, human propensities and physical properties are not semantically associated with other types of property predicates, but with resultative event predicates instead. Because of this association, a semantic extension to more time-stable types of property predicate is prevented. If such an extension had occurred, this would have meant that the already existing collocates expressing human propensities

[22] This is remarkable considering that the collocation *ȝung worthen* 'become young' is attested four times in our corpus, that it had already developed in OE, and that there had never been an alternative Verb in *-ian*. What explains this apparent incongruity is that Verbs in *-ian* denote 'progression in time' and as such are in conflict with the "transition" semantics of 'become young', which denotes a(n unusual) instance of time-reversal.

or physical properties would no longer be grouped together with event predicates, but instead with the broad range of property predicates covered by the schematic Copular Property Construction. However, in the case of *weorðan*, the impulse for such a reorganization is not strong enough to split up its Copular Time-Unstable Property Construction, and the homogenous status of the collocational profile of *weorðan* is preserved. The new verbs, *becuman* and *weaxan*, however, are not inhibited by a strong association between property predicates and resultative event predicates. Because they lack this strong bond, they were suitable to take over the predicate type formerly expressed by Verbs in *-ian*, and from this position they gradually extended to predicate types typically expressed by *weorðan*.

6. Discussion and conclusion

We have shown that in OE or earlier, after the development of several verbs into Copulas, schematic constructions emerged, among which (i) a schematic Copular Resultative Construction, and (ii) a schematic Copular Property Construction. As a result of new changes in some of the related substantive Constructions, both of these schematic constructions changed themselves from late OE onwards. The Copular Resultative Construction started to develop itself into a Passive Construction which no longer primarily encoded a type of intransitive predication, but instead was increasingly used as a discourse-structuring alternative to an Active Transitive Construction. Various changes added to this development, mainly the addition of an explitit agent in a PP, the semantic bleaching of the Copulas, and the extension of Participles to include atelic verbs indicating (ongoing) activities. While Constructions containing *weorðan* partially went through the first two changes, they stopped short and did not really pick up the third change anymore; the verb and its Constructions stopped evolving along with the other Resultative Constructions during the thirteenth century. Secondly, the schematic Copular Property Construction became increasingly productive, with the introduction of new Copulas such as *becuman* and *weaxan*. The success of these verbs as Copulas may be partially due to the loss of productivity of Verbs in *-ian* during ME. *Weorðan* did not extend to the more time-stable predicate types formerly expressed by Verbs in *-ian*, because *weorðan* was too strongly associated with a construction unique to it, which we named the Copular Time-Unstable Property Construction. In this construction, resultative event predicates and time-unstable property predicates (such as human propensity

and physical properties) formed a homogenous semantic group. When the schematic constructions (i) and (ii) started to change, *weorðan* did not develop along the same lines. Because *weorðan* did not develop, but preserved its original usage profile, it started to sound archaic as compared to the other Copulas, and eventually, in the course of the fourteenth century, all but disappeared.

We conclude with a brief reflection on the advantages of diachronic construction grammar when accounting for the loss of a certain substantive construction and the function word used in it. A major advantage is that diachronic construction grammar can explain why similar linguistic patterns, here designated with the term substantive constructions, interact with each other: the schematic level of the constructional network serves as a kind of channel that makes it possible for substantive constructions to give and receive information from each other and react to this exchange.[23] One might object that our hypothesis that substantive constructions are influenced by each other through the schematic construction as a mediator is nothing more than an ad hoc solution to a particular problem. However, while the way we formulate this process might be new, in itself what we say can easily be related to more widespread theoretical concepts, and this holds especially for the notion of analogy. Most of our argumentation can readily be recast in this direction, appealing to the general cognitive process of analogy, which can arguably also only work through a kind of schematic level as an intermediator (see especially Fischer 2007, De Smet 2009). Another advantage of our application of diachronic construction grammar is that it goes beyond merely observing that competition between lexemes arises when they become near-synonyms, and can explain why one of them is more suitable to be retained in the changing grammar than the other. In general, we hope to have shown how diachronic construction grammar can account for the loss of a function word such as *weorðan* which would otherwise be difficult to account for.

[23] While the positing of schematic Constructions might remind some of the innate grammatical structures posited by generative grammar, a major advantage, in our view, of Construction Grammar is that it is made explicit how the grammatical structures interact with actual language use. Indeed, the frequency history of *weorðan* shows that the loss of *weorðan* did not happen overnight. Construction grammar assumes that actual utterances are the locus of change (Croft 2000, 2001). In this view, language change is predicted to be gradual, as it needs to propagate from utterance to utterance throughout the entire language community, rather than being acquired in one sweep during language acquisition, the view generally held by generative grammarians (see e.g. Lightfoot 1979).

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